ORDINANCE NO. 2022-01-07

AN ORDINANCE APPROVING A SITE PLAN FOR GOLDFISH SWIM SCHOOL, LOCATED AT 348 SOUTH 500 EAST IN THE GC-2 GENERAL COMMERCIAL ZONE.

BE IT ORDAINED BY THE CITY COUNCIL OF AMERICAN FORK, UTAH,

PART I

DEVELOPMENT APPROVED – ZONE MAP AMENDED

A. The site plan for Goldfish Swim School, located at 348 South 500 East, American Fork, Utah, as set forth in Attachment A, is hereby approved.

B. Said plans are hereby adopted as an amendment to the Official Zone Map and territory included in the Plans are hereby designated as Large Scale Development Overlay Zone 581.

C. Said plans shall hereafter constitute the zone requirements applicable within the property so described.

PART II

ENFORCEMENT, PENALTY, SEVERABILITY, EFFECTIVE DATE

A. Hereafter, these amendments shall be construed as part of the Zoning Ordinance of American Fork, Utah, to the same effect as if originally a part thereof, and all provisions of said Ordinance shall be applicable thereto including, but not limited to, the enforcement, violation, and penalty provision thereof.

B. All ordinances, or resolutions, or parts thereof, in conflict with the provisions of this ordinance are hereby repealed.

C. This ordinance shall take effect upon its passage and posting as required by state law.

PASSED AND ORDERED PUBLISHED BY THE CITY COUNCIL OF AMERICAN FORK, UTAH, THIS 25th DAY OF JANUARY 2022.

Bradley J. Frost, Mayor

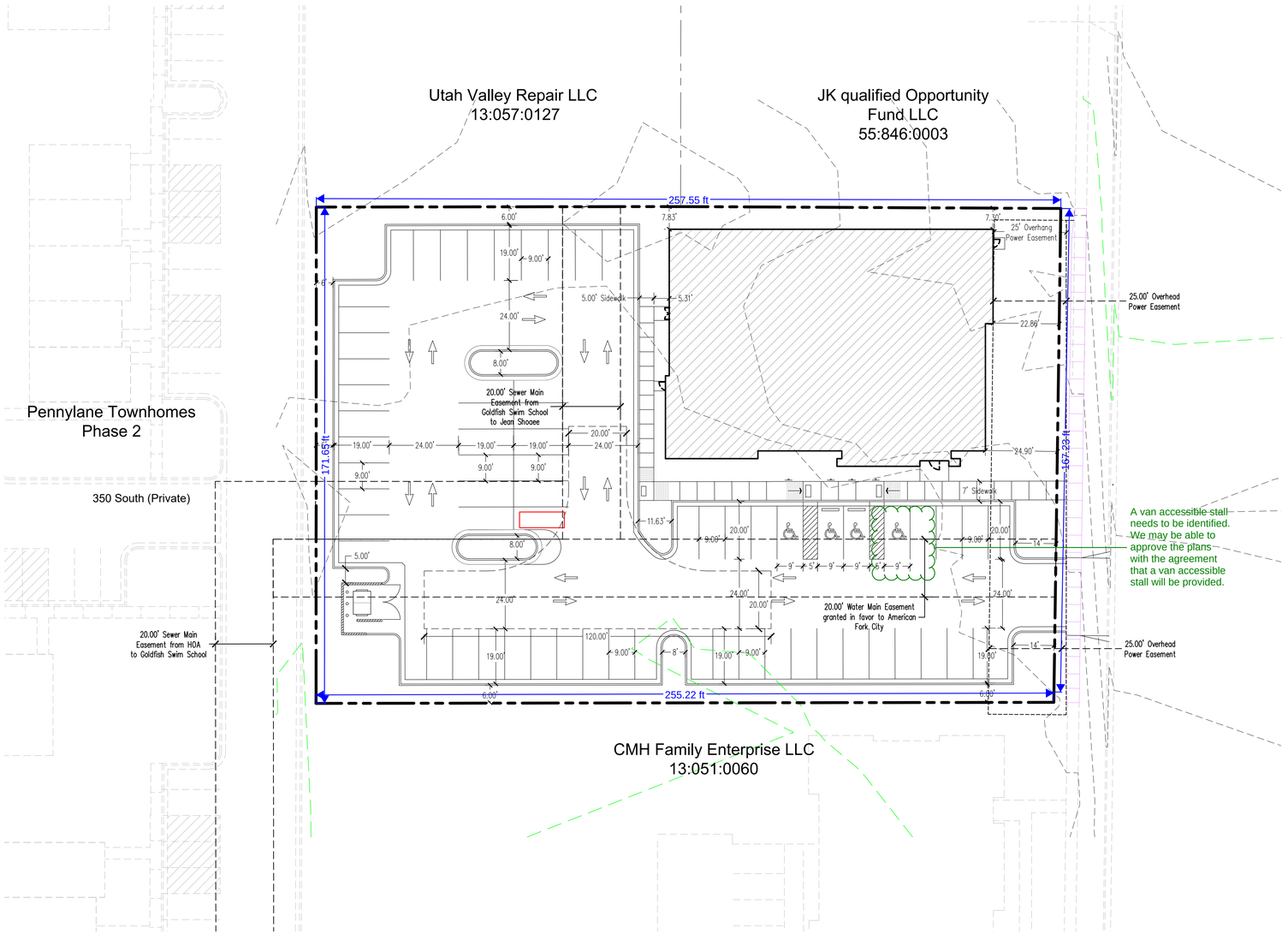
ATTEST:

Terilyn Lurker, City Recorder



NORTH
1" = 20'

goldfish swimschool



Missing the text for the boundary measurements. Based on calibrated measurements, the property lines on the site plan don't match the property lines on the ALTA. Why is there a discrepancy?

A van accessible stall needs to be identified. We may be able to approve the plans with the agreement that a van accessible stall will be provided.

Project Address:

348 South 500 East
American Fork, Utah 84003

Developer/Owner:

GOLDFISH SWIM SCHOOL

Architect:

Krieger Klatt Architects
2120 East 11 Mile Rd.
Royal Oak, MI 48067
248-414-9270
www.kriegerklatt.com

Engineer/Land Surveyor:

Dudley and Associates, Inc.
353 East 1200 South
Orem, Utah 84058
801-224-1252

REGISTERED PROFESSIONAL ENGINEER No. 147089 Roger D. Dudley STATE OF UTAH

Site Data:

Zone = GC-2 (General Commercial)
Total Property Area = 43,937 sq.ft. or 1.01 Acres
Total number of Buildings = 1

Building Data:

Footprint Area = 8,540 sq.ft.
IBC Construction Type II
IFC Occupancy Type Group E
Buildings will NOT be fire sprinkled

Parking Requirements

Total parking required = 1 space / 200 sq.ft. = 43
Total parking provided = 68
ADA Spaces Required = 4 ADA Accessible spaces

GRAPHIC SCALE

30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

CAUTION!!! Notice to contractors

The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and where possible from measurements taken in the field. the information is not to be considered exact or complete. The Contractor must notify the utility location center at least 48 hours prior to any excavation to request the exact location of the utilities in the field. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plan.



DUDLEY AND ASSOCIATES
ENGINEERS PLANNERS SURVEYORS
353 EAST 1200 SOUTH, OREM, UTAH
801-224-1252

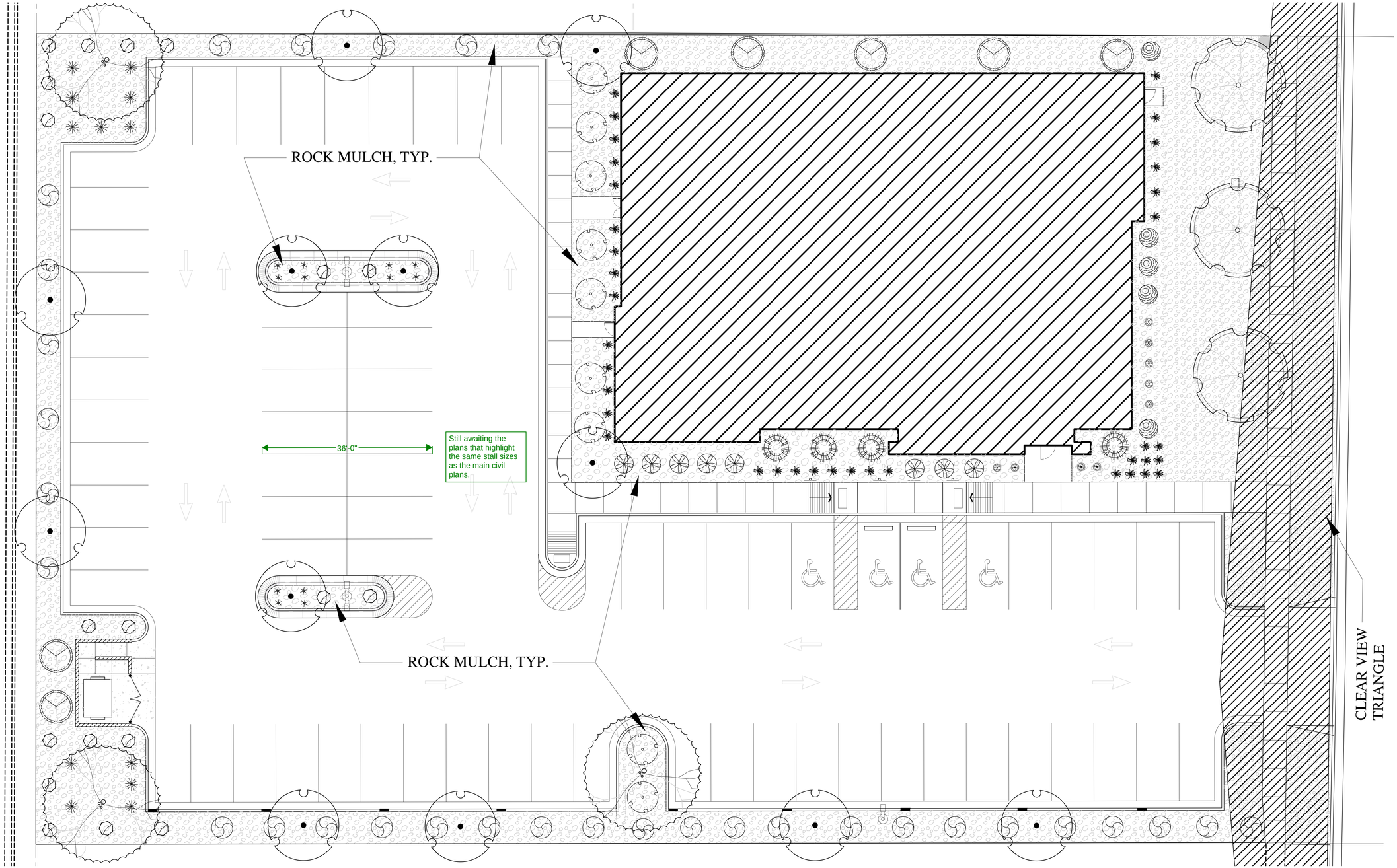
Goldfish Swim School
American Fork, Utah

Site Plan

Revisions

Date	11-18-2021
Scale	1" = 20'
By	TD
Tracing No.	L - 14630

Sheet No.
C -



AREA CALCULATIONS

TOTAL SITE AREA *NOT INCLUDING PARK STRIP AREA (1,505 S.F.)	44,557 S.F.
TOTAL LANDSCAPE AREA *NOT INCLUDING PARK STRIP AREA (1,318 S.F.)	9,932 S.F.
TREES (1 PER 2,500 S.F. OF IMPROVED AREA	
REQUIRED:	18
PROVIDED	18
SHRUBS (1 PER 300 S.F. OF IMPROVED AREA	
REQUIRED:	149
PROVIDED:	154

DECIDUOUS TREE LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE
	GLEDITSIA TRIACANTHOS INERMIS 'IMPCOLE' IMPERIAL HONEY LOCUST	3	2" CAL
	PRUNUS SERRULATA 'KWANZAN' KWANZAN JAPANESE FLOWERING CHERRY	3	2" CAL.
	TILIA CORDATA 'CORZAM' CORINTHIAN LITTLELEAF LINDEN	12	2" CAL.

DECIDUOUS SHRUB LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE
	CORNUS ALBA 'MINBAT' BATON ROUGE DOGWOOD	32	5 GAL.
	CORNUS SERICEA 'KELSEYI' KELSEY'S DWARF RED TWIG DOGWOOD	19	5 GAL.
	HISBISCUS SYRIACUS 'ANTONG TWO' LIL KIM DWARF ROSE OF SHARON	5	5 GAL.
	PHYSOCARPUS OPULIFOLIUS 'SMPOTW' TINY WINE NINEBARK	8	5 GAL.
	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	9	5 GAL.
	VIBURNUM X BURKWOODII BURKWOOD VIBURNUM	7	5 GAL.

EVERGREEN SHRUB LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE
	JUNIPERUS CHINENSIS 'BLUE POINT'" BLUE POINT JUNIPER	4	5-6' TALL

PERENNIALS / GRASSES LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE
	CALAMAGROSTIS X ACUTIFLORA 'AVALANCHE' FEATHER REED GRASS	9	1 GAL.
	CAREX ELATA 'BOWLES GOLDEN' BOWLES GOLDEN SEDGE	12	1 GAL.
	CAREX MUSKINGUMENSIS 'ICE FOUNTAINS' ICE FOUNTAINS PALM SEDGE	12	1 GAL.
	HEMEROCALLIS X `ALWAYS AFTERNOON' DAYLILY	37	1 GAL.

10' 0 10' 20' 30'

SCALE: 1"=10'-0" ON 24X36 SHEET

In Site
DESIGN GROUP
Landscape Architecture Land Planning
57 North 450 West American Fork, Utah 84003
801.756.5043 www.in-sitedesigngroup.com

2120 E. 11 Mile Rd. | Royal Oak, MI 48067
P: 248.414.9270 **F:** 248.414.9275
www.kriegerklatt.com

Client:
Goldfish Swim Schools

Project:
GSS - American Fork, UT
348 South 500 East
American Fork, Utah

Issued	Description	By
04.19.2021	Site Plan Review	TS
06.07.2021	TRC Review	DW
08.24.2021	TRC Revisions 01	DW
09.29.2021	C&S/Bids	DW
10.29.2021	C&S/Bids	CW

Brand Standard:
All Brand Standards must be followed - No deviation permitted without prior written Goldfish Franchise approval.

Seal:
STATE OF UTAH
DARREN G. WILSON
NO. 356187
10-08-2021
LICENSED LANDSCAPE ARCHITECT

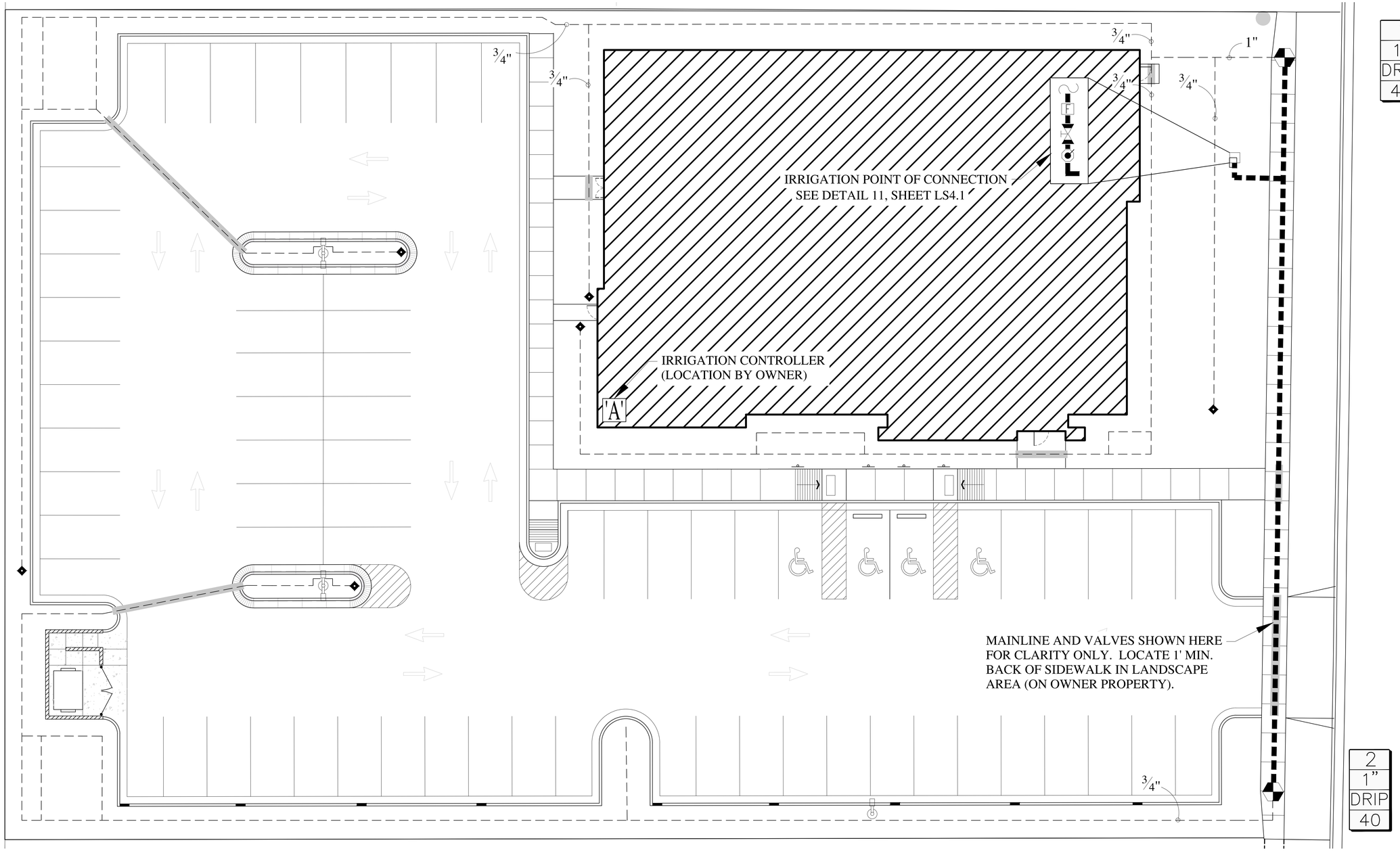
Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
PLANTING PLAN

Project Number:
21-017

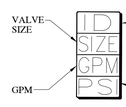
Sheet Number:
LS1.1



IRRIGATION LEGEND

SYMBOL	MANUFACTURER-MODEL NUMBER	PAT.	RD.	PSI	GPM						DRIP GPH	DETAILS	REMARKS
					Q	T	H	TT	TQ	F			
NOT SHOWN	GPH INC. GPSCV2M DRIP EMITTER	F	--	30	--	--	--	--	--	--	2.0	16-19	SEE IRRIGATION DETAILS
NOT SHOWN	RAINBIRD PC-05 EMITTER WITH DIFFUSER CAP	F	--	30	--	--	--	--	--	--	5.0	16-19	SEE IRRIGATION DETAILS
NOT SHOWN	DRIPLINE: NETAFIM TLCV26-18	F	--	30	--	--	--	--	--	--	.26/18"	16-19	SEE IRRIGATION DETAILS
NOT USED	RAIN BIRD 1804-PRS POP-UP SPRAY 10 SERIES	Q,T,H	10'	30	.39	.53	.79	--	--	--	--	6	ADJUST ARC AS NEEDED
NOT USED	RAIN BIRD 1804-PRS POP-UP SPRAY SERIES VAN	VAN	10'	30	--	--	--	--	--	--	--	6	ADJUST ARC AS NEEDED
NOT USED	RAIN BIRD R-VAN24 (RD-04-SAM-P45 TURF ROTARY)	VAN	24'	45	--	--	--	--	--	--	--	6	ADJUST ARC AS NEEDED
'A'	RAINBIRD CONTROLLER, MODEL #ESPLXBASIC. LC TO COORDINATE WITH TRADES TO RUN CONDUIT AND SLEEVING FOR WIRING TO VALVES. SIZE CONTROLLER AS NECESSARY. PLACE CONTROLLER IN WEATHER RESISTANT CABINET											1	COORDINATE EXACT LOCATION WITH OWNER.
F	1" RAINBIRD SCREEN FILTER											12-13	SEE IRRIGATION DETAILS
	1" SCHEDULE 80 ISOLATION VALVE											12-13	JUMBO VALVE BOX
	1" POINT OF CONNECTION TO P.I. WATER MAIN PER CIVIL DRAWINGS.											12-13	JUMBO VALVE BOX
NOT USED	RAIN BIRD PESB-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN). INSTALL PRS-D OPTION PER DETAILS.											5-7	SEE IRRIGATION DETAILS
	DRIP CONTROL ZONE KIT: RAINBIRD XCZ-100-PRB COM											14	JUMBO VALVE BOX
	1" SCH. 40 PVC MAINLINE											4, 8	SEE IRRIGATION DETAILS
NOT USED	LATERAL LINE: PVC SCH. 40 (SIZE PER PLAN)											4, 8	SEE IRRIGATION DETAILS
	DRIP LATERAL: PVC SCH 40, OR STICKY-STRIP PVC HOSE BY GPH. L.C. SHALL SIZE PIPE PER DETAILS AND SPECS.											16-19	SEE IRRIGATION DETAILS
	1" RAINBIRD QUICK COUPLER VALVE, MODEL #44NP FOR SYSTEM BLOWOUT. ALL GALVANIZED FITTINGS & PIPE.											3	SEE IRRIGATION DETAILS
NOT SHOWN	14 GAUGE SINGLE STRAND SOLID COPPER CONTROL WIRE											4	SEE IRRIGATION DETAILS
	SLEEVE (SIZE TO BE A MIN. OF TWICE THE DIAMETER OF THE MAIN, LATERAL)											8	COORDINATE WITH ALL TRADES
NOT SHOWN	WIRE CHASE. SIZE TO BE 2X THE DIAMETER OF THE WIRE BUNDLE WITHIN, 1" DIA. WC IS THE MINIMUM SIZE ALLOWED.											4	COORDINATE WITH ALL TRADES
◆	FLUSH VALVE: 1/2" PVC BALL VALVE. INSTALL AT END OF ALL DRIP LINES IN 10" ROUND VALVE BOX											15	REFERENCE DETAILS

VALVE ID TAG



DRIP EMITTER LEGEND

PLANT TYPE	EMITTER QTY	EMITTER TYPE
PERENNIALS/GRASSES	1	GPSTCV2M (2GPH)
ALL SHRUBS	2	GPSTCV2M (2GPH)
TREES IN PLANTERS	2	PC-05 (5GPH)

NOTE:
1. EMITTERS LISTED ARE AVAILABLE FROM GPH AND RAINBIRD.
2. EMITTERS ARE NOT NECESSARY FOR TREES IN LAWN AREAS.
3. INSTALL NETAFIM TLCV IN ADDITION TO PC-05 EMITTERS PER IRRIGATION DETAILS.
4. INSTALL PC-DIFFUSER CAP ON ALL PC-05 EMITTERS.

IRRIGATION NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE LANDSCAPE CONTRACTOR (L.C.) SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
2. L.C. SHALL HAVE ALL UTILITIES BLUE STAKED BEFORE DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF CONTRACTOR WITH NO EXTRA COST TO THE OWNER.
3. PROVIDE AN AS-BUILT, REPRODUCIBLE DRAWING TO OWNER SHOWING ALL DRAINS, VALVES, AND PIPES. PROVIDE INSTRUCTIONS TO MAINTENANCE PERSONNEL FOR WINTERIZATION. SPRINKLER SYSTEM TO BE BLOWN OUT WITH AN AIR COMPRESSOR EACH FALL.
4. L.C. SHALL ONLY USE COMMERCIAL GRADE PRODUCTS AND IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS/QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION.
5. L.C. SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN SCH. 40 ELECTRICAL CONDUIT. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES AS NECESSARY.
6. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
7. MAIN LINE SHALL BE 1" (UNLESS OTHERWISE DIRECTED). LATERAL LINES SHALL BE NO SMALLER THAN 3/4" UNLESS NOTED ON PLAN. PIPES SHALL CARRY NO MORE THAN THE FOLLOWING: 1/2" MAX. 4 GPM, 3/4" PIPE MAX. 8GPM, 1" PIPE MAX. 13GPM. ADJUST LOCATION OF MAINLINE AND LATERAL LINES AS NECESSARY IN ORDER TO AVOID PLACING BOULDERS, TREES AND SHRUBS DIRECTLY OVER MAINLINE AND LATERAL LINES.
8. MAIN LINES SHALL BE 18" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 3/4" DIAMETER SHALL BE ALLOWED IN TRENCHES.
9. PLACE PIPES, VALVE BOXES AND ALL OTHER SPRINKLER CONSTRUCTION IN LANDSCAPE AREAS. ALL PIPES SHALL BE ON PROPERTY OF OWNER. MODIFY LOCATION OF VALVE BOXES AS NECESSARY IN ORDER TO AVOID TREES AND SHRUBS PER PLANTING PLAN. DO NOT LOCATE VALVE BOXES IN LAWN AREAS IF POSSIBLE.
10. LANDSCAPE ARCHITECT OR OWNER SHALL VISUALLY INSPECT ALL TRENCHES PRIOR TO BACKFILLING. L.C. SHALL GIVE LANDSCAPE ARCHITECT MIN. 72 HR. NOTICE BEFORE INSPECTION IS TO BE MADE. L.C. SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
11. ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. CONTRACTOR IS RESPONSIBLE TO MAKE NECESSARY ADJUSTMENTS TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS. L.C. SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS.
12. VALVE BOXES SHALL BE INSTALLED SQUARED TO AND 6" MIN. AWAY FROM WALKS AND WALLS.
13. DRIP LINES SHALL BE FLEXIBLE AR PVC TUBING BY GPH. FOR DRIP AREAS REQUIRING 0-4 GPM USE 1/2" TUBING. FOR DRIP AREAS REQUIRING 4-8GPM USE 3/4" TUBING AND FOR DRIP AREAS REQUIRING 8-13 GPM USE 1" TUBING. CONTRACTOR TO VERIFY PLANT QUANTITIES ON EACH DRIP LINE AND SIZE PIPE ACCORDINGLY. L.C. TO INSTALL RAIN BIRD XFD-09-12 ON-SURFACE DRIP LINE FOR TREES PER THE DETAILS. MODIFY DRIP ZONES AS NECESSARY TO PROVIDE ADEQUATE COVERAGE TO ALL LANDSCAPED AREAS.
14. POWER TO CONTROLLER TO BE PROVIDED BY ELECTRICAL CONTRACTOR. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. IF MOUNTED OUTSIDE, CONTROLLER TO BE MOUNTED IN WEATHERPROOF LOCKING WALL MOUNTED CABINET PER MANUFACTURERS INSTRUCTIONS. L.C. SHALL ENSURE THE CONTROLLER IS GROUNDED PER LOCAL CODE AND PER MANUFACTURER SPEC.
15. IF THE STATIC PRESSURE AT THE POINT OF CONNECTION EXCEEDS 110 PSI, INSTALL A BRASS PRESSURE REDUCER IN-LINE WITH THE FILTER PER MANUFACTURER SPECS. INSTALL THE FILTER AND PRESSURE REDUCER IN A VALVE BOX (SIZE AS REQUIRED). ADJUST PRESSURE AS REQUIRED FOR NORMAL OPERATION OF THE IRRIGATION SYSTEM.

2120 E. 11 Mile Rd. | Royal Oak, MI 48067
P: 248.414.9270 **F:** 248.414.9275
www.kriegerklatt.com

Client:
Goldfish Swim Schools

Project:
GSS - American Fork, UT
348 South 500 East
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Brand Standard:
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Seal:



Note:
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North Arrow:



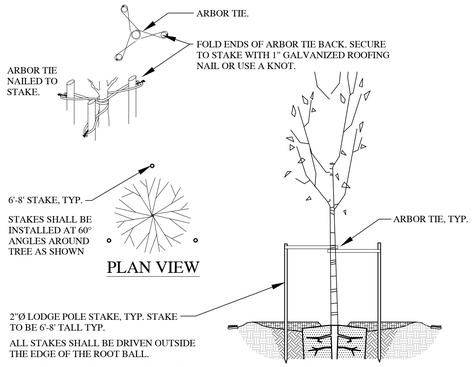
Sheet Title:
IRRIGATION PLAN

Project Number:
21-017

Sheet Number:
LS2.1

In Site DESIGN GROUP
Landscape Architecture Land Planning
17 North 300 West American Fork, Utah 84003
801.756.5043 www.in-sitedesigngroup.com

10' 0 10' 20' 30'
SCALE: 1"=10'-0" ON 24X36 SHEET

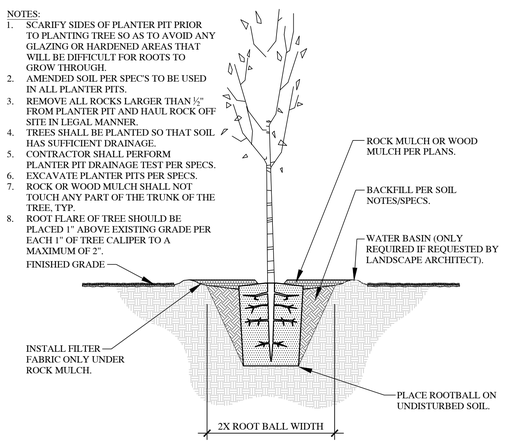


NOTES: IF TREE STAKING IS REQUIRED, THE FOLLOWING IS RECOMMENDED:
1. ALLOW FOR SOME TRUNK MOVEMENT. ATTACH ARBOR TIE TO TREE AND STAKE.
2. REMOVE ALL WRAPPING MATERIAL FROM ROOTBALL PRIOR TO PLANTING.
3. INSTALL THREE STAKES PER TREE, SPACED EVENLY AROUND THE TRUNK
4. REMOVE ALL STAKING AS SOON AS THE TREE IS STABLE.
5. CONTRACTOR SHALL PROVIDE TREE STAKING AS PART OF THE BASE BID.
6. CONTRACTOR TO REMOVE NURSERY TREE STAKE FROM ROOTBALL AT TIME OF PLANTING (TYP.).

1 TREE STAKING

SCALE: NTS

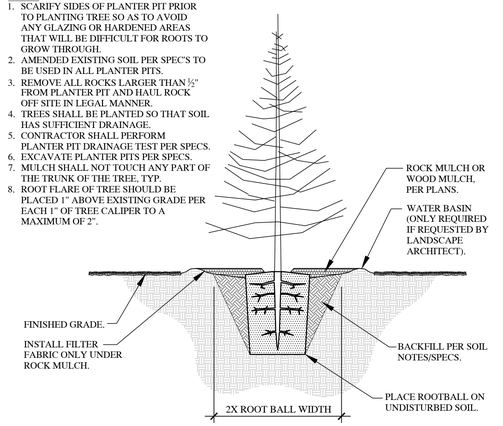
NOTES:
1. SCARIFY SIDES OF PLANTER PIT PRIOR TO PLANTING TREE SO AS TO AVOID ANY GLAZING OR HARDENED AREAS THAT WILL BE DIFFICULT FOR ROOTS TO GROW THROUGH.
2. AMENDED SOIL PER SPEC'S TO BE USED IN ALL PLANTER PITS.
3. REMOVE ALL ROCKS LARGER THAN ½" FROM PLANTER PIT AND HAUL ROCK OFF SITE IN LEGAL MANNER.
4. TREES SHALL BE PLANTED SO THAT SOIL HAS SUFFICIENT DRAINAGE.
5. CONTRACTOR SHALL PERFORM PLANTER PIT DRAINAGE TEST PER SPECS.
6. EXCAVATE PLANTER PITS PER SPECS.
7. ROCK OR WOOD MULCH SHALL NOT TOUCH ANY PART OF THE TRUNK OF THE TREE, TYP.
8. ROOT FLARE OF TREE SHOULD BE PLACED 1" ABOVE EXISTING GRADE PER EACH 1" OF TREE CALIPER TO A MAXIMUM OF 2".



2 DECIDUOUS TREE PLANTING

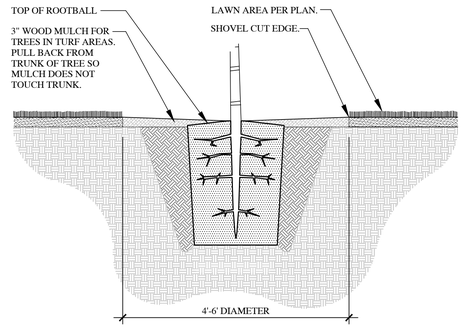
SCALE: NTS

NOTES:
1. SCARIFY SIDES OF PLANTER PIT PRIOR TO PLANTING TREE SO AS TO AVOID ANY GLAZING OR HARDENED AREAS THAT WILL BE DIFFICULT FOR ROOTS TO GROW THROUGH.
2. AMENDED EXISTING SOIL PER SPEC'S TO BE USED IN ALL PLANTER PITS.
3. REMOVE ALL ROCKS LARGER THAN ½" FROM PLANTER PIT AND HAUL ROCK OFF SITE IN LEGAL MANNER.
4. TREES SHALL BE PLANTED SO THAT SOIL HAS SUFFICIENT DRAINAGE.
5. CONTRACTOR SHALL PERFORM PLANTER PIT DRAINAGE TEST PER SPECS.
6. EXCAVATE PLANTER PITS PER SPECS.
7. MULCH SHALL NOT TOUCH ANY PART OF THE TRUNK OF THE TREE, TYP.
8. ROOT FLARE OF TREE SHOULD BE PLACED 1" ABOVE EXISTING GRADE PER EACH 1" OF TREE CALIPER TO A MAXIMUM OF 2".



3 EVERGREEN PLANTING

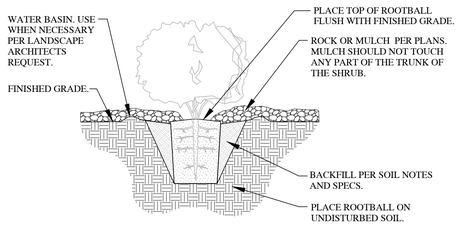
SCALE: NTS



NOTES:
1. DO NOT INSTALL WEED FABRIC UNDER WOOD MULCH.
2. TREE WELL FOR SMALL FLOWERING TREES SHALL BE 4'-0".
3. TREE WELL FOR LARGE SHADE TREES OR EVERGREENS SHALL BE 6'-0" UNLESS OTHERWISE NOTED.
4. AS TREES MATURE TREE WELL WILL NEED TO EXPAND.

4 TREE WELL IN TURF AREA

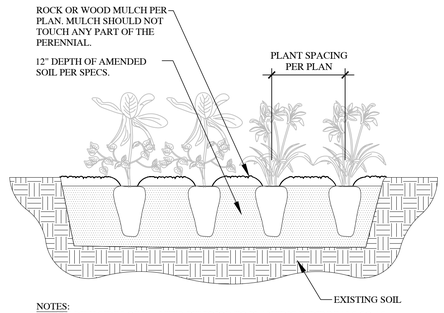
SCALE: NTS



NOTES:
1. SCARIFY SIDES OF PLANTER PIT PRIOR TO PLANTING SHRUB/GRASS SO AS TO AVOID ANY GLAZING OR HARDENED AREAS THAT WILL BE DIFFICULT FOR ROOTS TO GROW THROUGH.
2. IMPORTED & AMENDED TOPSOIL PER SPEC'S TO BE USED IN ALL PLANTER PITS.
3. REMOVE ALL COMPACTED, CLAY OR ROCKY SOILS FROM PIT AND HAUL OFF SITE IN A LEGAL MANNER.
4. CONTRACTOR SHALL PERFORM PLANTER PIT DRAINAGE TEST PER SPECS.
5. EXCAVATE PLANTER PITS PER SPECS.

5 SHRUB & ORNAMENTAL GRASS PLANTING

SCALE: NTS



NOTES:
1. SCARIFY SIDES OF PLANTER PIT PRIOR TO PLANTING PERENNIALS SO AS TO AVOID ANY GLAZING OR HARDENED AREAS THAT WILL BE DIFFICULT FOR ROOTS TO GROW THROUGH.
2. REMOVE ALL COMPACTED, CLAY OR ROCKY SOILS FROM PIT AND HAUL OFF SITE IN LEGAL MANNER.
3. CONTRACTOR SHALL PERFORM PLANTER PIT DRAINAGE TEST PER SPECS.
4. EXCAVATE PLANTER PITS PER SPECS.

6 PERENNIAL PLANTING

SCALE: NTS

NOT USED

7 SOD LAYING AND EDGE

SCALE: NTS

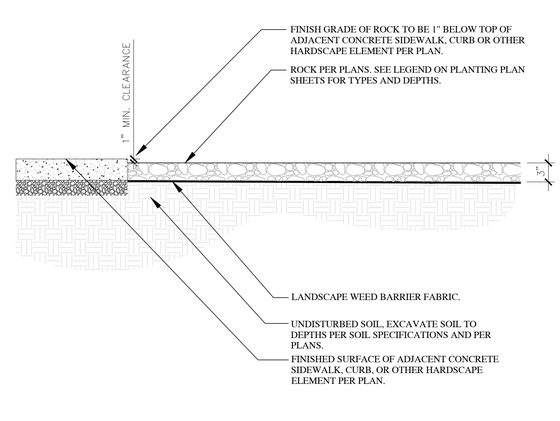
NOT USED

00 6" MOWCURB SECTION

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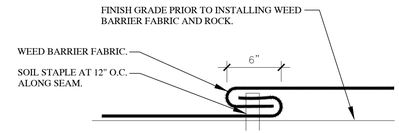
1. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE.
2. PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. ANY SUBSTITUTIONS TO BE APPROVED BY OWNER AND/OR LANDSCAPE ARCHITECT.
3. NEW AUTOMATIC UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED PRIOR TO LANDSCAPE INSTALLATION TO ENSURE PROPER WATERING OF ALL LANDSCAPE AREAS. REFER TO IRRIGATION PLANS FOR SPECIFICS.
4. SANDY LOAM TOPSOIL TO BE INSTALLED AT THE FOLLOWING DEPTHS: 12" IMPORTED SANDY LOAM TOPSOIL (INCLUDING MIN. 15% HIGH GRADE DECOMPOSED ORGANIC MATERIAL MIXED INTO TOPSOIL PRIOR TO SPREADING) IN ALL NEW PLANTER AREAS. PROVIDE OWNER A BID ALTERNATE TO ONLY INSTALL 6" OF AMENDED TOPSOIL IN PLANTER AREAS VS. 12".
5. PLANTER BEDS TO BE EXCAVATED AS NECESSARY IN ORDER TO ALLOW FOR TOPSOIL, AMENDMENTS AND MULCH. THE FINISHED GRADE OF PLANTER AREAS SHALL BE APPROX. 1" BELOW TOP OF CURB, SIDEWALK, OR OTHER PAVED AREA.
6. DEWITT 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL ROCK MULCH AREAS (IF ANY). DO NOT INSTALL WEED BARRIER FABRIC UNDER ANNUALS, GROUNDCOVERS AND AREAS TO RECEIVE WOOD MULCH.
7. INSTALL PRE-EMERGENT HERBICIDE TO THE TOP OF THE FABRIC AFTER INSTALLING PLANTS AND PRIOR TO INSTALLING MULCH. AFTER INSTALLATION OF THE MULCH THE CONTRACTOR SHALL EVENLY BROADCAST A SECOND APPLICATION OF SLOW-RELEASE PRE-EMERGENT HERBICIDE. APPLY PRE-EMERGENT HERBICIDE PER MANUFACTURERS RECOMMENDATIONS. ALL PLANTING AREAS SHALL RECEIVE 2 APPLICATIONS OF PRE-EMERGENT HERBICIDE REGARDLESS OF WHETHER WEED FABRIC IS INSTALLED OR NOT.
8. DECORATIVE ROCK MULCH TO BE 1"-2" SIZE SOUTHTOWN CRUSHED STONE FROM UTAH LANDSCAPE ROCK AND INSTALLED AT A 3" DEPTH IN ALL TREE AND SHRUB PLANTER AREAS. PULL MULCH MIN. 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES. MULCH TYPE AND COLOR SHALL MATCH THE ADJACENT DEVELOPMENT. OWNER TO APPROVE THE MULCH TYPE AND COLOR PRIOR TO INSTALLATION.
9. IF HIGH WINDS ARE FREQUENT ON SITE, ALL TREES TO BE STAKED AT TIME OF PLANTING. SEE DETAILS FOR SPECIFICS. REMOVE STAKING WITHIN FIRST YEAR OR WHEN TREE IS ESTABLISHED.
10. CONTRACTOR SHALL INSPECT ALL DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES FOUND IN THE DRAWINGS, DETAILS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND IN-SITE DESIGN GROUP PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN WRITTEN FIELD DIRECTIVES FROM IN-SITE DESIGN GROUP AND/OR THE OWNER STATING PROPER COURSE OF ACTION IF DISCREPANCIES OR ERRORS ARE DISCOVERED PRIOR TO AND DURING CONSTRUCTION.

9 LANDSCAPE NOTES



NOTES:
1. ROCK SHALL BE SCREENED & DOUBLE WASHED AND BE FREE OF DEBRIS PRIOR TO INSTALLATION. IF ROCK SUPPLIER DOES NOT HAVE A WASH PLANT, THE LANDSCAPE CONTRACTOR SHALL STILL BE RESPONSIBLE FOR DOUBLE WASHING ALL ROCK AND BOULDERS PRIOR TO INSTALLATION.
2. INSTALL PRE-EMERGENT HERBICIDE TO THE TOP OF THE FABRIC AFTER INSTALLING PLANTS AND PRIOR TO INSTALLING MULCH. AFTER INSTALLATION OF THE MULCH THE CONTRACTOR SHALL EVENLY BROADCAST A SECOND APPLICATION OF SLOW-RELEASE PRE-EMERGENT HERBICIDE. APPLY PRE-EMERGENT HERBICIDE PER MANUFACTURERS RECOMMENDATIONS.
3. KEEP TOP OF ROCK 1"-1½" BELOW ADJACENT WALKS AND CURBS. DO NOT ALLOW ROCK TO TOUCH THE TRUNK OF ANY PLANT. INSTALL ROCK AFTER INSTALLATION OF WEED BARRIER FABRIC AND PLANT MATERIAL.
4. CONTRACTOR TO ENSURE THAT TOP OF WEED BARRIER FABRIC IS FREE OF SOILS AND DEBRIS PRIOR TO PLACING ROCK.
5. SEE LANDSCAPE PLANS FOR ROCK TYPE AND DEPTH.

WEED FABRIC NOTE:
INSTALL 6" SOIL STAPLE IN WEED BARRIER FABRIC AT 5' O.C. TRIANGULAR SPACING. INSTALL 6" SOIL STAPLE AT 12" O.C. ALONG ALL WEED BARRIER FABRIC SEAMS. OVERLAP FABRIC MIN. OF 6" AT ALL SEAMS AS SHOWN BELOW. INSTALL SOIL STAPLE 6' O.C. ALONG EDGES & 2 AT EACH CORNER.



10 ROCK AND WEED BARRIER FABRIC

SCALE: NTS

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Seal:

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PLANTING DETAILS

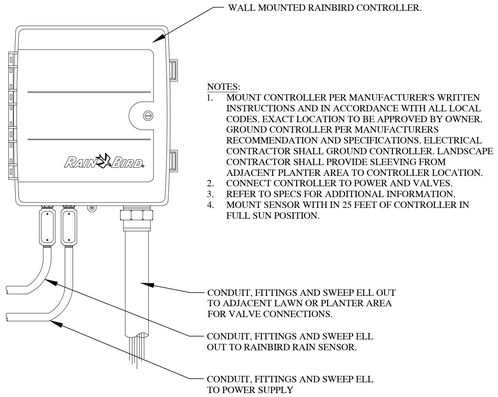
Project Number:

21-017

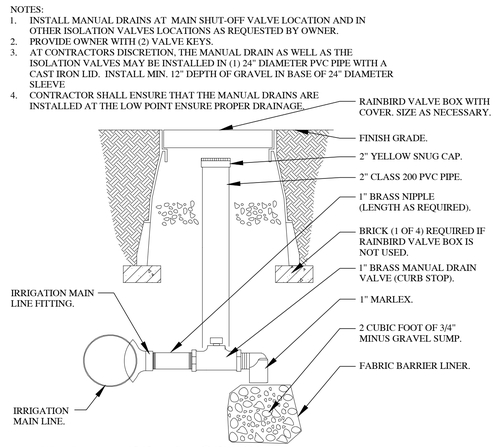
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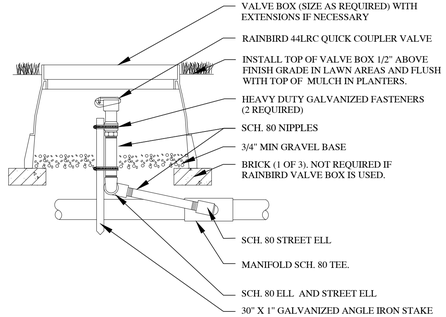
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1 CONTROLLER WITH SENSOR
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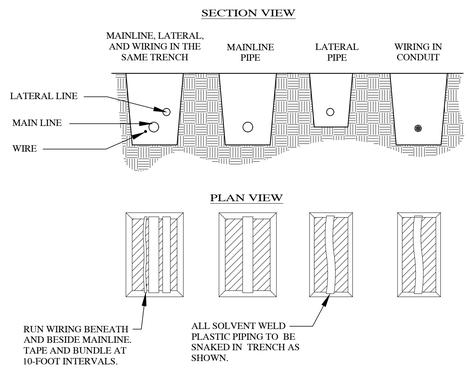


2 MANUAL DRAIN (OPTIONAL)
SCALE: NTS



NOTES:
1. FLUSH ALL PIPING PRIOR TO INSTALLING VALVE.
2. WRAP ALL THREADS WITH TEFLON TAPE. 1.1/2 TO 2 WRAPS MAXIMUM.
3. COMPACT SOILS AROUND VALVE BOX TO 80% OF ORIGINAL DRY DENSITY.
4. INSTALL GEOFABRIC UNDER VALVE BOXES AND TAPE TO PIPE NIPPLES AND VALVE BOX.
5. BOX COLOR - GREEN IN TURF AND TAN IN PLANTER AREAS.
6. IRRIGATION SYSTEM TO BE BLOWN OUT WITH AIR COMPRESSOR THROUGH THE RPZ AND QUICK COUPLERS BEFORE FREEZING TEMPERATURES OCCUR, TYP.
7. SCH 80 PVC TEE OR ELL'S CAN BE USED ON ALL QUICK COUPLERS EXCEPT AT POINT OF CONNECTION (IF QUICK COUPLER(S) ARE INSTALLED AT THE POINT OF CONNECTION). ALL QUICK COUPLER FITTINGS AND NIPPLES AT P.O.C. QUICK COUPLER(S) TO BE GALVANIZED.

3 QUICK COUPLER VALVE
SCALE: NTS

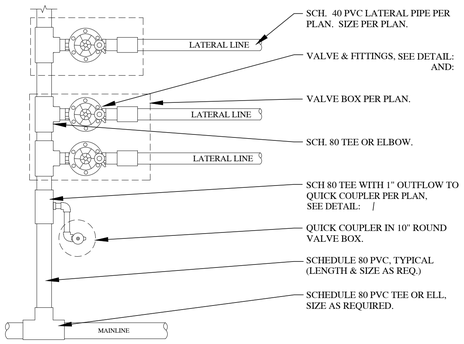


NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS (WITH CLASS 200 OR SCH. 40 OR SCH. 80 PER SPECS.) TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS, SEE NOTES AND SPECS.
3. NO LINE VOLTAGE WIRING SHALL BE ALLOWED IN IRRIGATION TRENCHES.

4 PIPE, WIRE, AND TRENCH
SCALE: NTS

NOT USED

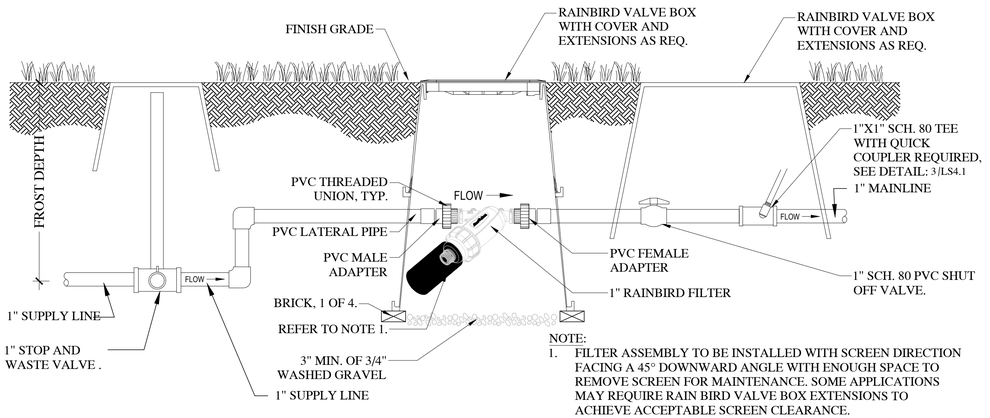
NOT USED



NOTES:
1. ALL VALVE MANIFOLD PIPING AND FITTINGS TO BE SCH. 80 FITTINGS, UNLESS THERE IS A DRIP ZONE ALL BY ITSELF IN WHICH CASE THE PIPING SHALL BE SIZED PER THE FLOW OF THE DRIP ZONE.
2. MODIFY MANIFOLD AS NECESSARY DEPENDING ON HOW MANY VALVES ARE IN A CLUSTER.
3. MODIFY AS REQUIRED DEPENDING ON WHETHER THE VALVES ARE PARALLEL OR PERPENDICULAR TO MAINLINE.

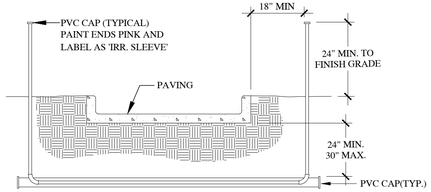
5 VALVE MANIFOLD
SCALE: NTS

NOT USED



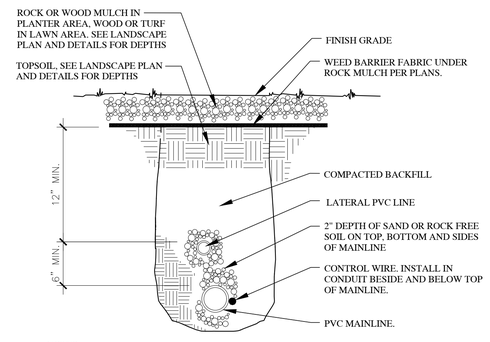
NOTE:
1. FILTER ASSEMBLY TO BE INSTALLED WITH SCREEN DIRECTION FACING A 45° DOWNWARD ANGLE WITH ENOUGH SPACE TO REMOVE SCREEN FOR MAINTENANCE. SOME APPLICATIONS MAY REQUIRE RAIN BIRD VALVE BOX EXTENSIONS TO ACHIEVE ACCEPTABLE SCREEN CLEARANCE.
2. BRICKS ARE NOT REQUIRED UNDER VALVE BOXES IF RAINBIRD VALVE BOXES ARE USED.
3. INSTALL MISC. REDUCER FITTINGS AS REQ. (NOT SHOWN).

11 1-1/2" SCREEN FILTER IN BOX
SCALE: NTS



NOTE:
1. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE.
2. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.

8 SLEEVING
SCALE: NTS



NOTES:
1. PROVIDE SLACK IN CONTROL WIRES AT ALL CHANGES IN DIRECTION.
2. MAINLINE DEPTH SHALL BE 18" DEEP EXCEPT UNDER ASPHALT & CONCRETE PAVING AND AT P.O.C. SHALL BE MIN OF 24" & MAX OF 30". INSTALL ADDITIONAL FITTINGS & RESTRAINTS AS REQUIRED.
3. MAINLINE AND LATERAL LINES SHALL BE KEPT MIN. 12" FROM ALL SIDEWALKS AND CURBS.

9 TRENCH SECTION
SCALE: NTS

NOT USED

10 POP-UP SPRAY
SCALE: NTS

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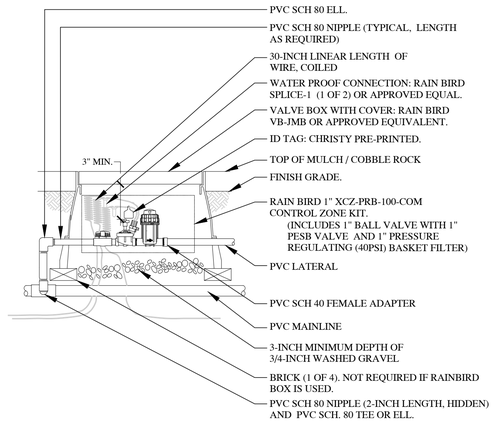
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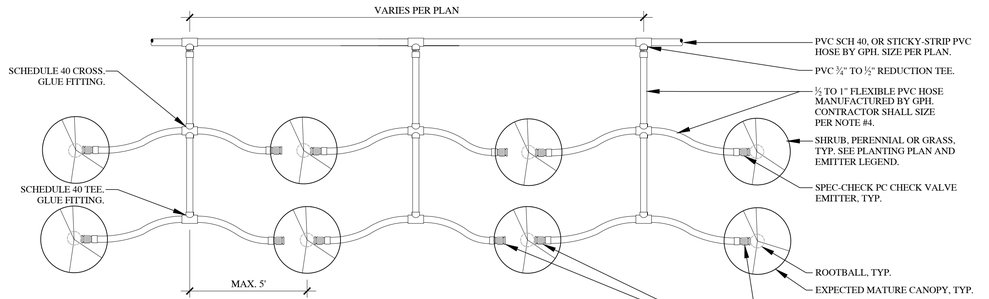
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LS4.1



12 1" DRIP CONTROL ZONE KIT

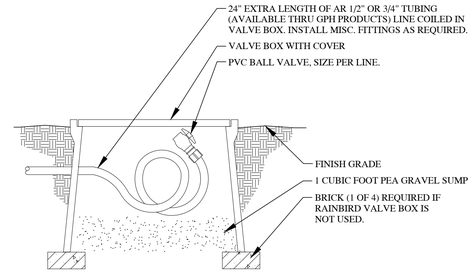
SCALE: NTS



NOTES:
1. EMITTER SPACING SHALL BE BASED ON PLANT SPACING. INSTALL ALL IRRIGATION USING THE COMPONENTS DESCRIBED ABOVE.
2. IRRIGATION EQUIPMENT SHALL BE COMPLETELY INSTALLED PRIOR TO PLANT LAYOUTS.
3. ADJUST IRRIGATION SPACING TO ACCOMMODATE FINAL PLANT LAYOUT.
4. 1/2" PVC FLEX HOSE SHALL NOT EXCEED 4GPM, 3/4" PVC FLEX HOSE SHALL NOT EXCEED 8GPM AND 1" PVC FLEX HOSE SHALL NOT EXCEED 13GPM.
5. AT OWNERS DISCRETION, A LESS EXPENSIVE DRIP SYSTEM MAY BE INSTALLED. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, SUBMITTAL CUT SHEETS AND POTENTIAL COST SAVINGS TO OWNER. HOWEVER, THE OWNER AND LANDSCAPE ARCHITECT MUST APPROVE ALL CHANGES IN MATERIALS AND CONSTRUCTION PRACTICES IF DIFFERENT FROM THE PLAN.
6. SMALL EVERGREEN TREES MAY NEED FEWER EMITTERS. CONSULT WITH THE LANDSCAPE ARCHITECT ON-SITE PRIOR TO INSTALLING IRRIGATION TO DETERMINE QUANTITY OF EMITTERS.
7. SEE IRRIGATION SHEET FOR DRIP EMITTER LEGEND.
8. USE IPS WELDON 795 GLUE AND P70 PRIMER PER GPH INC. SPECIFICATIONS.
9. DO NOT INSTALL PIPE, FITTINGS, OR GLUE IN TEMPERATURES BELOW 40 DEGREES. SEE MANUFACTURER SPECIFICATIONS FROM MORE INFORMATION.

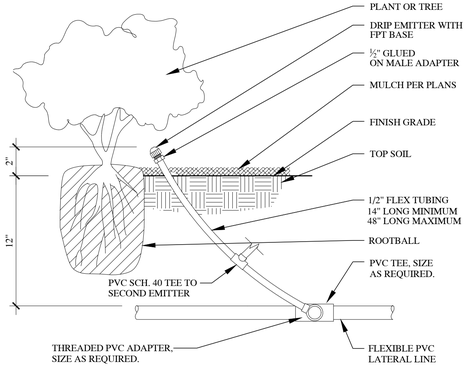
13 GPH DRIP EMITTER PLAN VIEW

SCALE: NTS



14 DRIP LINE FLUSH CAP

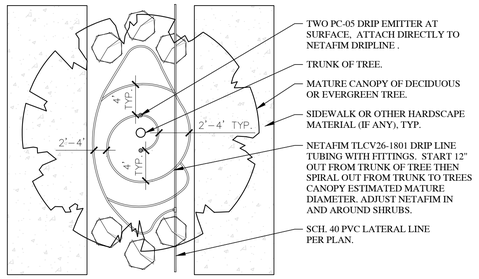
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NOTE:
1. FOR LAYOUT OF MULTIPLE SHRUBS, CONTRACTOR SHALL USE TEE'S AS NECESSARY. FOR LAYOUT INFORMATION, SEE DETAIL: /

15 DRIP EMITTER

SCALE: NTS



NOTES:
1. LAYOUT SHOWN IS TYPICAL. ON SITE MODIFICATIONS WILL BE REQUIRED DUE TO VARYING SIZE OF PLANTER ISLANDS. CONSULT WITH LANDSCAPE ARCHITECT ON-SITE PRIOR TO INSTALLATION TO DETERMINE HOW MUCH DRIP NEEDS TO BE INSTALLED AND WHAT CONFIGURATION IS APPROPRIATE.
2. INSTALL NETAFIM DRIP TUBING UNDER WEED BARRIER FABRIC. USE THIS DETAIL FOR ALL TREES PLANTED IN COBBLE ROCK AREAS. CONTRACTOR SHALL BE CAREFUL NOT TO DAMAGE OR PINCH TUBING WHEN PLACING COBBLE ROCK AND BOULDERS.
3. TREES PLANTED IN LAWN AREAS WILL NOT BE WATERED BY DRIP BUT WILL BE WATERED BY THE LAWN SPRINKLERS.
4. THIS DETAIL IS FOR DESIGN INTENT ONLY AND IS NOT TO SCALE. CONTRACTOR MUST INSTALL DRIP LINE PER THIS DETAIL OUT TO THE DRIPLINE OF THE TREES MATURE SIZE.
5. FOR LINEAR PLANTERS WITH TREES, INSTALL NETAFIM IN STRAIGHT LINES RATHER THAN A CIRCULAR PATTERN AROUND THE TREE.
6. INSTALL A FLUSH VALVE (NOT SHOWN) AT THE END OF ALL DRIP LINES, PER PLAN.

16 TREE DRIP WITH PARTIAL PLANTING UNDER CANOPY

SCALE: NTS

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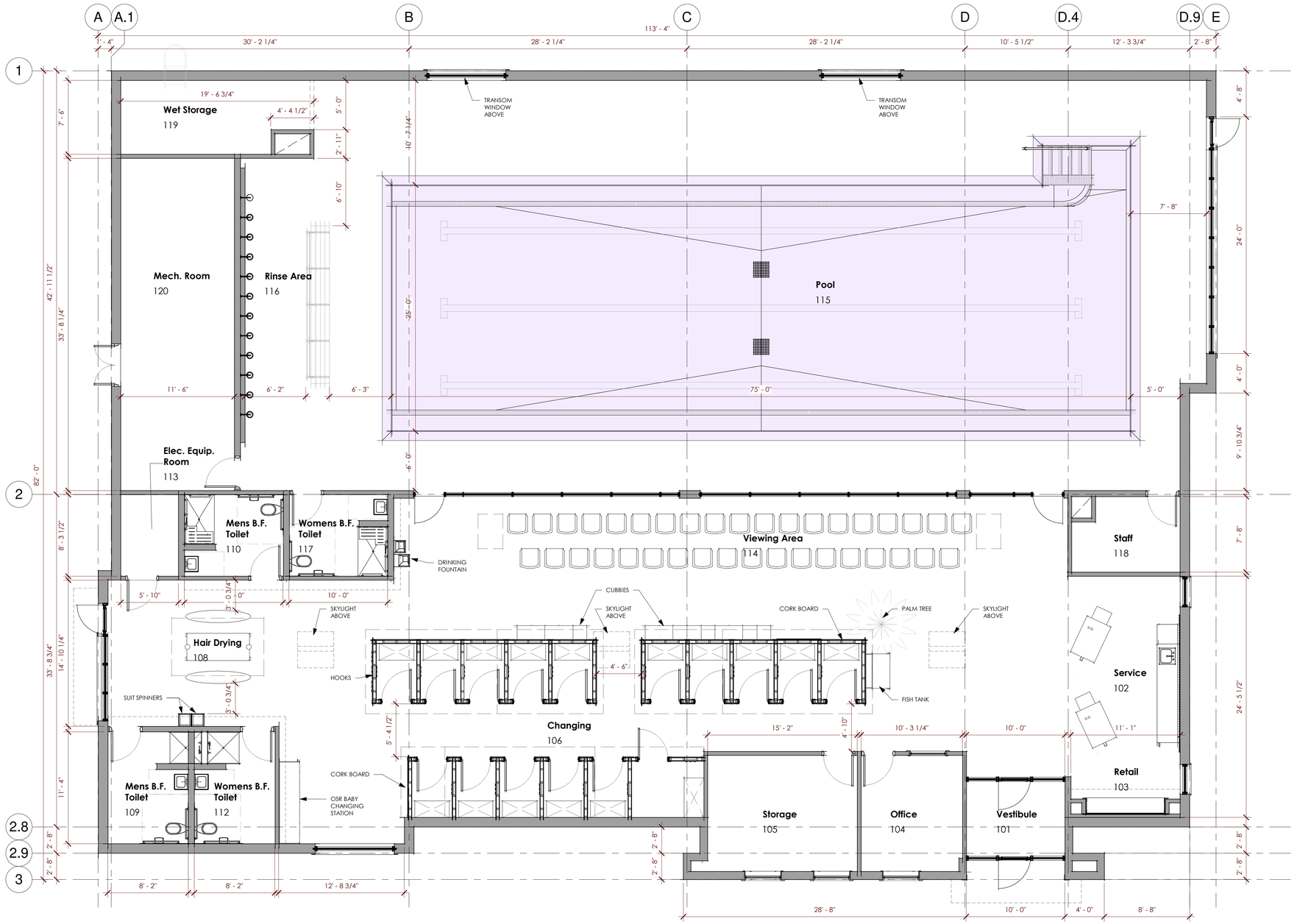
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First Floor - Proposed - 8,783 Gross S.F.

3/16" = 1'-0"

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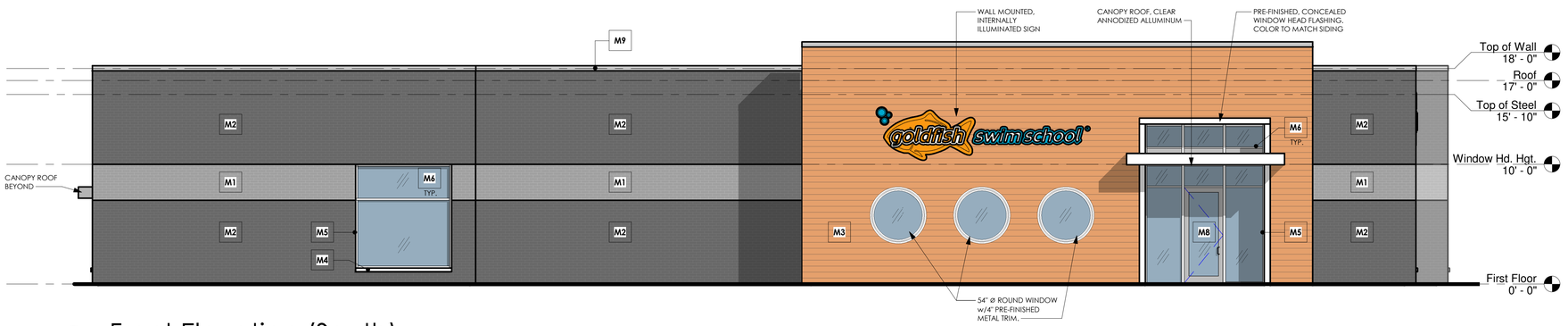
Floor Plan - Proposed

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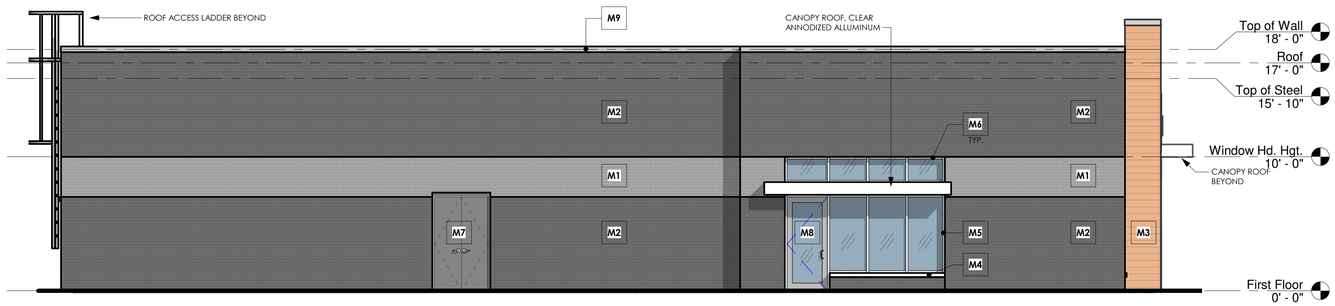
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A.100



1 Front Elevation (South)

3/16" = 1'-0"
A.101



2 Side Elevation (West)

3/16" = 1'-0"
A.101

Exterior Material Schedule X

TAG	DESCRIPTION	LOCATION	MANUFACTURER	FINISH / COLOR
M-1	CMU (BRICK) FACADE (LIGHTER)	AS NOTED ON ELEVATIONS	SPEC-BRIK - HI-R	FACE BRICK: HARGUS MORTAR: MATCH BRICK COLORS (SUBMIT SAMPLE)
M-2	CMU (BRICK) FACADE (DARKER)	AS NOTED ON ELEVATIONS	SPEC-BRIK - HI-R	FACE BRICK: CHESAPEAKE MORTAR: MATCH BRICK COLORS (SUBMIT SAMPLES)
M-3	HORIZONTAL ALUMINUM WOOD GRAIN SIDING	AS NOTED ON ELEVATIONS	LONGBOARD - 6" CHANNEL SIDING PLANKS	WOODGRAIN - COLOR TBD.
M-4	STONE SILL	AS NOTED ON ELEVATIONS	-	-
M-5	STOREFRONT GLAZING FRAMES	AS NOTED ON ELEVATIONS	SUBMIT SHOP DRAWINGS FOR APPROVAL	KAWNEER-TRIFAB VG451T
M-6	STOREFRONT CLEAR GLASS	AS NOTED ON ELEVATIONS	SUBMIT SHOP DRAWINGS FOR APPROVAL	1" INSULATED W/LOW E-COATING PPG SOLARBAN 60
M-7	H.M. DELIVERY DOOR & FRAME	AS NOTED ON ELEVATIONS	SEE DOOR SCHEDULE ON A.600	SHERWIN WILLIAMS SW6075 GARRET GRAY
M-8	ALUMINUM/GLASS DOOR	AS NOTED ON ELEVATIONS	SEE DOOR SCHEDULE ON A.600	CLEAR ANOD. ALUMINUM W/CLEAR TEMP. GLASS
M-9	PRE-FINISHED METAL COPING	AS NOTED ON ELEVATIONS	PAC-CLAD PAC TITE COPING	SILVER METALLIC (SUBMIT SAMPLES FOR APPROVAL)
M-10	PRE-FIN. METAL FLUSH WALL PANELS	AS NOTED ON ELEVATIONS	CEI-COMPOSITE MATERIALS 734-212-3006	MCM-METAL COMPOSITE MATERIAL/#4000 COLOR: TO MATCH STOREFRONT (SUBMIT SAMPLE)

NOTE:
INSTALL CONTROL JOINT AT MAXIMUM 25'-0" SPACING IN BRICK VENEER.
INSTALL PER CODE AND MASONRY INSTITUTE STANDARDS.
CAULK ALL EXPANSION JOINTS WITH SPECIFIED COLOR TO MATCH BRICK, OR APPROVED SAMPLE/
CAULK: TREMCO - DYMONIC 100 - POLYURETHANE SEALANT (OR EQUIVALANT) : MATCH TO BRICK COLOR - SEE COLOR GUIDE online:
TREMCOSEALANTS.COM/PRODUCTS/DYMONIC-100.ASPX (MATCH TO SUBMITTED BRICK SAMPLES)

REFER TO SHEET CS.600 FOR WINDOW TYPE LEGEND. *ALL GLAZING AND DOORS TO BE THERMALLY BROKEN*

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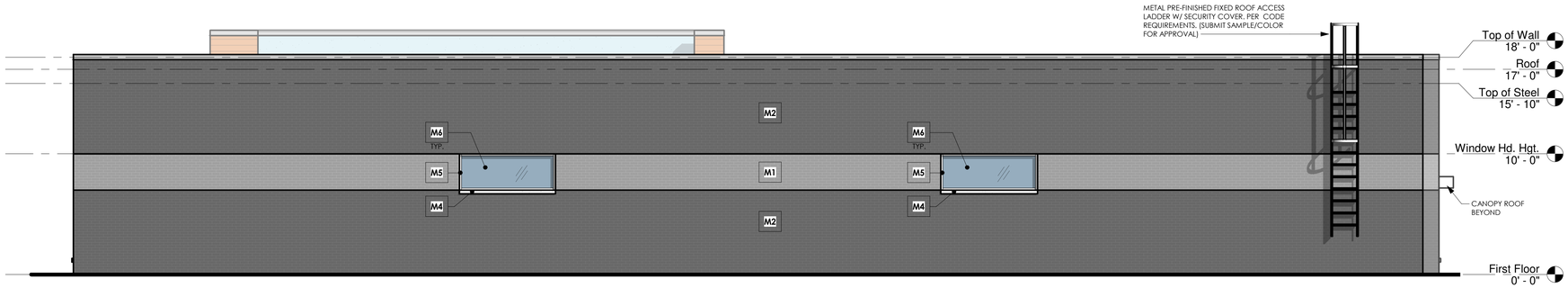
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Sheet Title:
Exterior Elevations

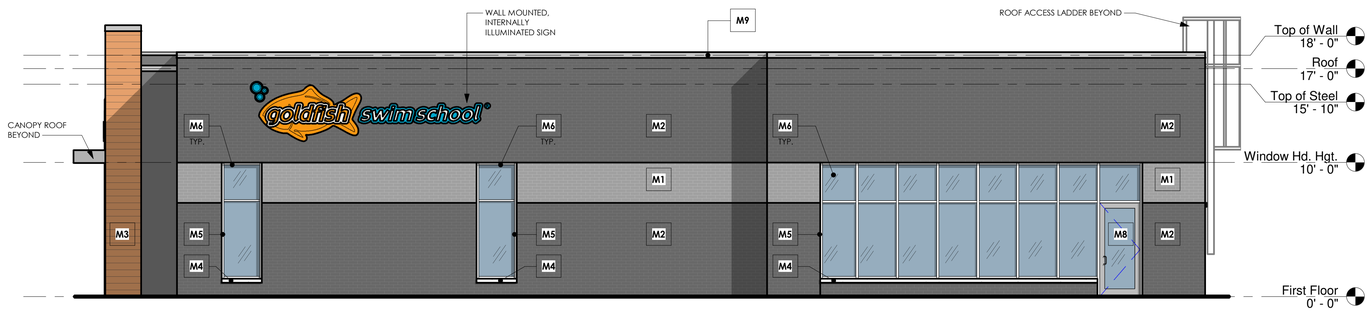
Project Number:
21-017

Sheet Number:
A.200



3 Rear Elevation (North)

3/16" = 1'-0"
A.101



4 Side Elevation (East)

3/16" = 1'-0"
A.101

Exterior Material Schedule X

TAG	DESCRIPTION	LOCATION	MANUFACTURER	FINISH / COLOR
M-1	CMU (BRICK) FACADE (LIGHTER)	AS NOTED ON ELEVATIONS	SPEC-BRIK - HI-R	FACE BRICK: HARGUS MORTAR: MATCH BRICK COLORS (SUBMIT SAMPLE)
M-2	CMU (BRICK) FACADE (DARKER)	AS NOTED ON ELEVATIONS	SPEC-BRIK - HI-R	FACE BRICK: CHESAPEAKE MORTAR: MATCH BRICK COLORS (SUBMIT SAMPLES)
M-3	HORIZONTAL ALUMINUM WOOD GRAIN SIDING	AS NOTED ON ELEVATIONS	LONGBOARD - 6" CHANNEL SIDING PLANKS	WOODGRAIN - COLOR TBD.
M-4	STONE SILL	AS NOTED ON ELEVATIONS	-	-
M-5	STOREFRONT GLAZING FRAMES	AS NOTED ON ELEVATIONS	SUBMIT SHOP DRAWINGS FOR APPROVAL	KAWNEER-TRIFAB VG451T
M-6	STOREFRONT CLEAR GLASS	AS NOTED ON ELEVATIONS	SUBMIT SHOP DRAWINGS FOR APPROVAL	1" INSULATED W/LOW E-COATING PPG SOLARBAN 60
M-7	H.M. DELIVERY DOOR & FRAME	AS NOTED ON ELEVATIONS	SEE DOOR SCHEDULE ON A.600	SHERWIN WILLIAMS SW6075 GARRET GRAY
M-8	ALUMINUM/GLASS DOOR	AS NOTED ON ELEVATIONS	SEE DOOR SCHEDULE ON A.600	CLEAR ANOD. ALUMINUM W/CLEAR TEMP. GLASS
M-9	PRE-FINISHED METAL COPING	AS NOTED ON ELEVATIONS	PAC-CLAD PAC TITE COPING	SILVER METALLIC (SUBMIT SAMPLES FOR APPROVAL)
M-10	PRE-FIN. METAL FLUSH WALL PANELS	AS NOTED ON ELEVATIONS	CEI-COMPOSITE MATERIALS 734-212-3006	MCM-METAL COMPOSITE MATERIAL/#4000 COLOR: TO MATCH STOREFRONT (SUBMIT SAMPLE)

NOTE:
INSTALL CONTROL JOINT AT MAXIMUM 25'-0" SPACING IN BRICK VENEER.
INSTALL PER CODE AND MASONRY INSTITUTE STANDARDS.
CAULK ALL EXPANSION JOINTS WITH SPECIFIED COLOR TO MATCH BRICK, OR APPROVED SAMPLE/
CAULK: TREMCO - DYMONIC 100 - POLYURETHANE SEALANT (OR EQUIVALANT) : MATCH TO BRICK COLOR - SEE COLOR GUIDE online:
TREMCOSEALANTS.COM/PRODUCTS/DYMONIC-100.ASPX (MATCH TO SUBMITTED BRICK SAMPLES)

REFER TO SHEET CS.600 FOR WINDOW TYPE LEGEND. *ALL GLAZING AND DOORS TO BE THERMALLY BROKEN*

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architecture interiors consulting
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P: 248.414.9270 **F:** 248.414.9275
www.kriegerklatt.com

Client:
Goldfish Swim Schools
FA.192

Project:
GSS - American Fork, UT
348 South 500 East
American Fork, Utah

Issued	Description	By
06.07.2021	TRC Review	TS
08.24.2021	TRC Revisions 01	TS

Brand Standard:
All Brand Standards must be followed - No deviation permitted without prior written Goldfish Franchise approval.

Seal:
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JEFFREY G KLATT
9079384-0301
LICENSED ARCHITECT

Note:
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North Arrow:

Sheet Title:
Exterior Elevations

Project Number:
21-017

Sheet Number:
A.201



South-West Rendering - 1
No Scale



South-West Rendering - 2
No Scale



South-East Rendering - 1
No Scale



South-East Rendering - 2
No Scale

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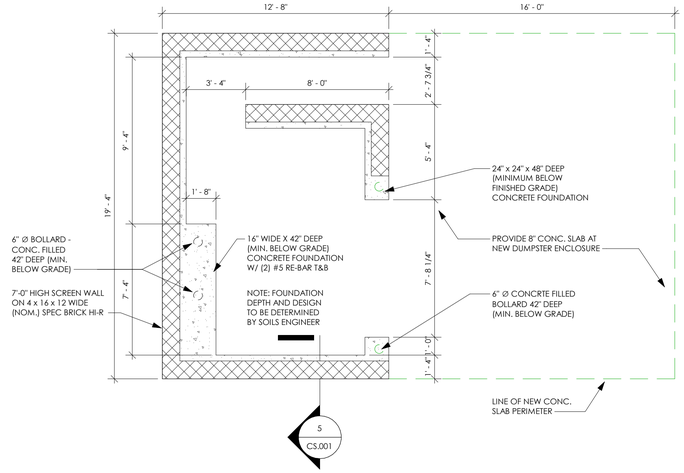
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North Arrow:

Sheet Title:
3D Views

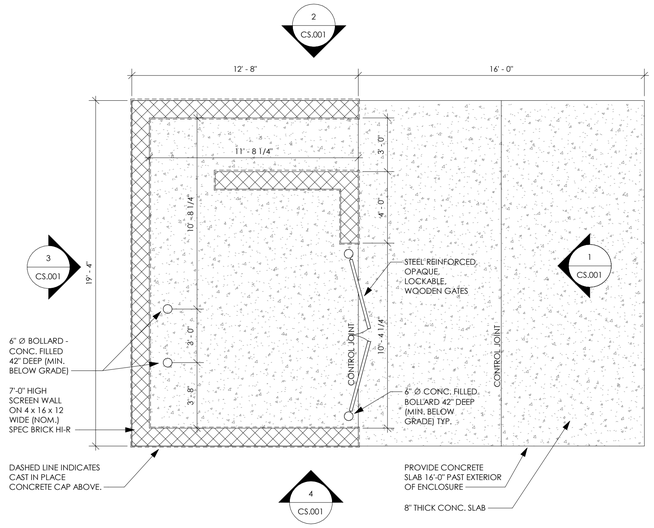
Project Number:
21-017

Sheet Number:
CS.000



Trash Enclosure Foundation Plan

1/4" = 1'-0"



Trash Enclosure Floor Plan

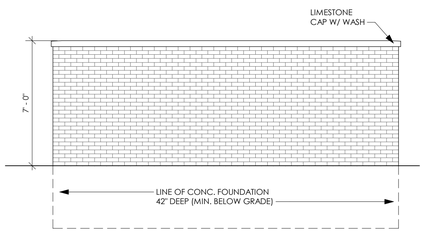
1/4" = 1'-0"

1 Trash Enclosure Elev. 1

1/4" = 1'-0"

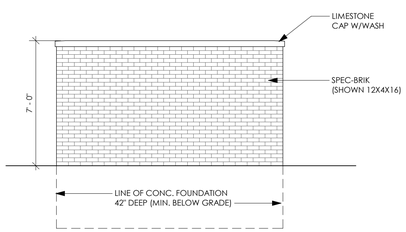
2 Trash Enclosure Elev. 2

1/4" = 1'-0"



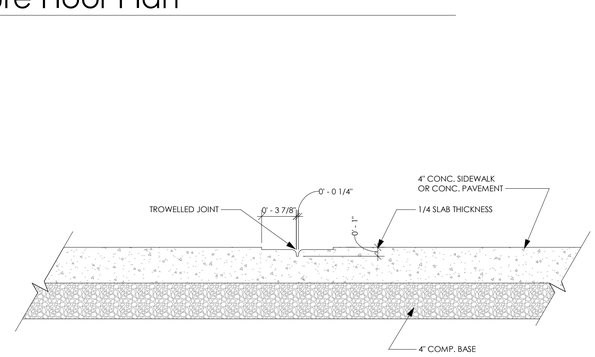
3 Trash Enclosure Elev. 3

1/4" = 1'-0"



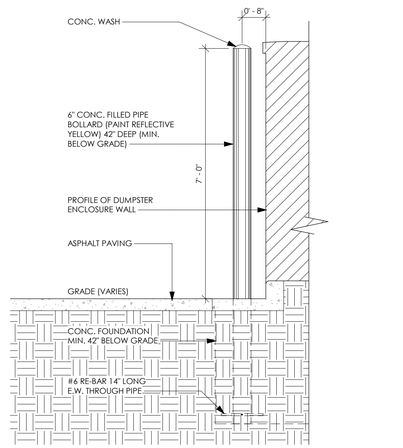
4 Trash Enclosure Elev. 4

1/4" = 1'-0"



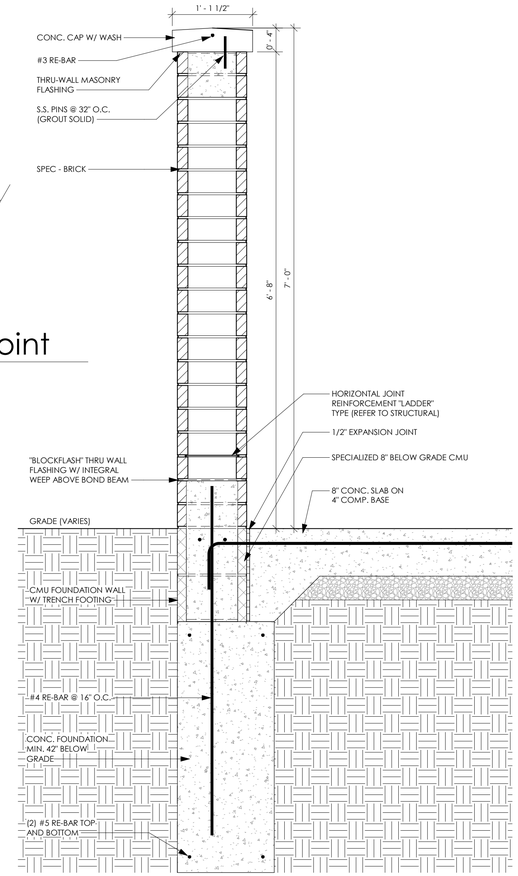
Trash Enclosure Detail @ Construction Joint

1 1/2" = 1'-0"



Trash Enclosure Bollard Detail

1/2" = 1'-0"



5 Trash Enclosure Section

1" = 1'-0"

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Client:

Goldfish Swim Schools
FA.192

Project:

GSS - American Fork, UT
348 South 500 East
American Fork, Utah

Issued	Description	By
06.07.2021	TRC Review	TS
08.24.2021	TRC Revisions 01	TS

Brand Standard:

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Note:

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North Arrow:

Sheet Title:

Trash Enclosure Plans & Details

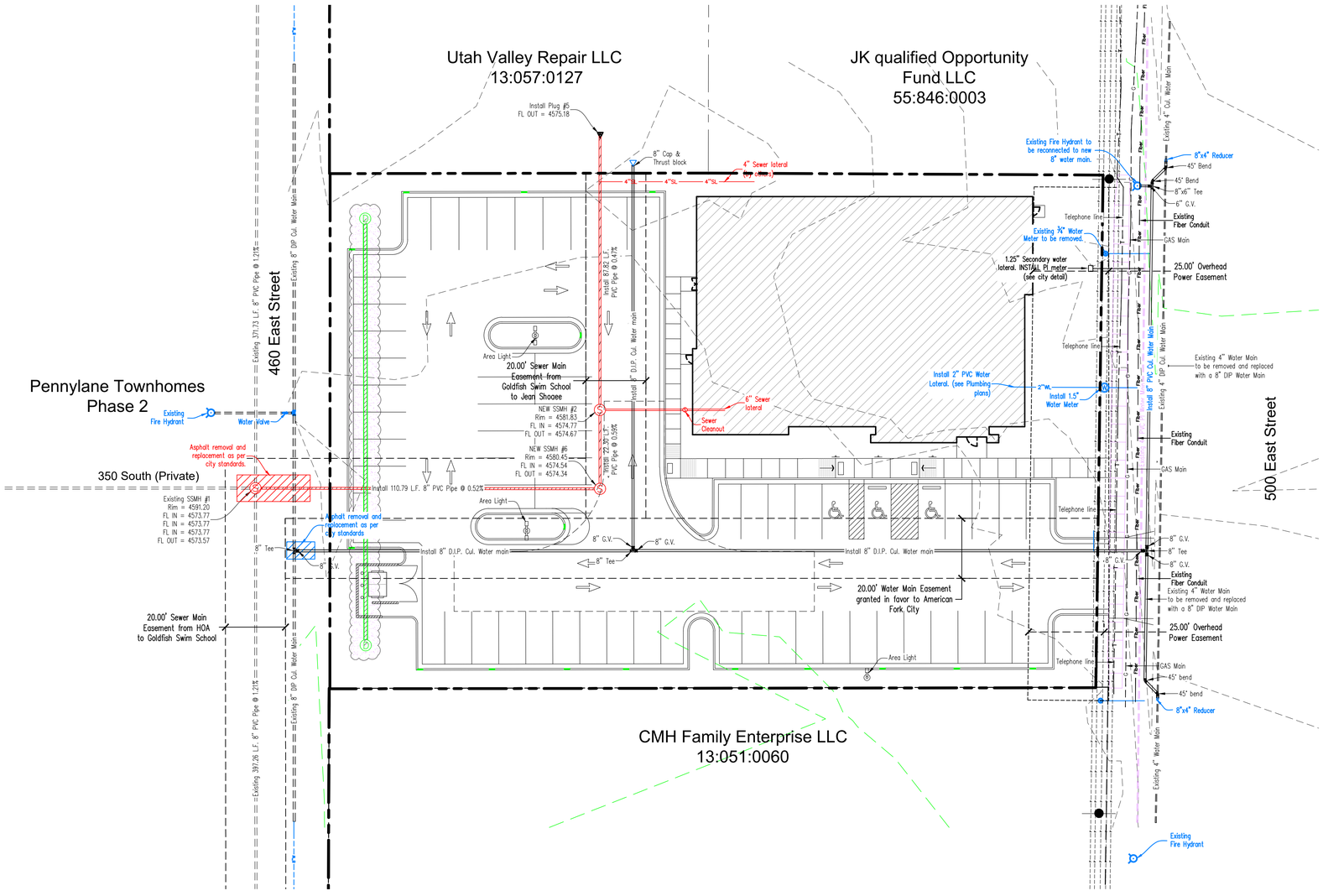
Project Number:

21-017

Sheet Number:

CS.001

NORTH
1" = 20'



CAUTION!!! Notice to contractors

The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and where possible from measurements taken in the field. the information is not to be considered exact or complete. The Contractor must notify the utility location center at least 48 hours prior to any excavation to request the exact location of the utilities in the field. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plan.



Note:

Source information from plans and markings has been combined with observed evidence of existing utilities to develop a view of those underground utilities. However lacking excavation, Blue Staking, etc. the exact location of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, the client is advised that excavation may be necessary.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

DUDLEY AND ASSOCIATES
ENGINEERS PLANNERS SURVEYORS
353 EAST 1200 SOUTH, OREM, UTAH
801-224-1252

Goldfish Swim School

Utility Plan

American Fork, Utah

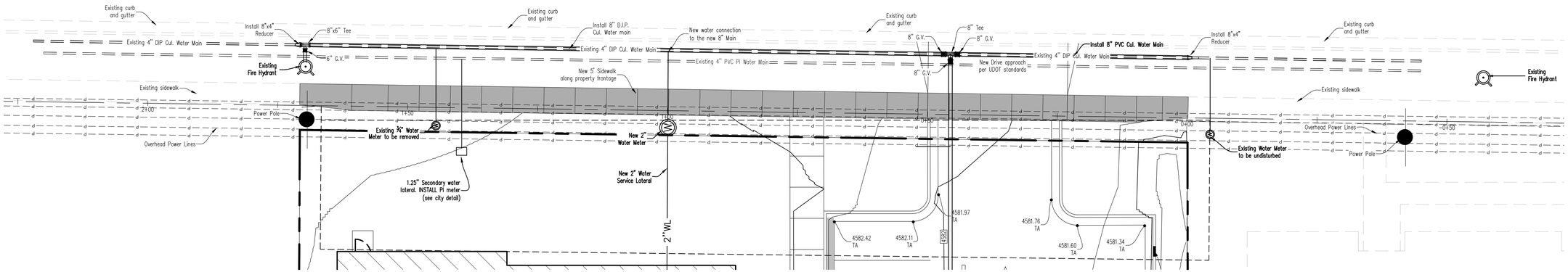
Revisions
1-20-2022 additions

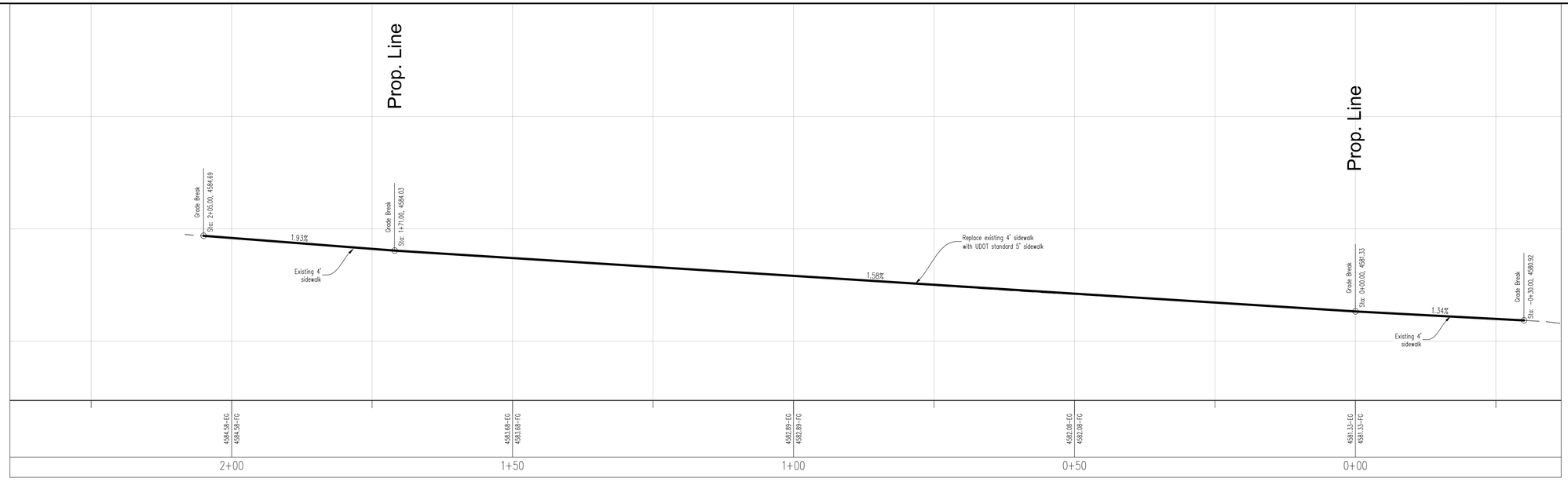
Date	1-14-2022
	PERMITS
Scale	1" = 20'
By	TD
Tracing No.	L - 14630

Sheet No.
C - 3.0

NORTH
1" = 10'

500 East Street





Know what's below. Call 811 before you dig.
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CAUTION!!! Notice to contractors

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

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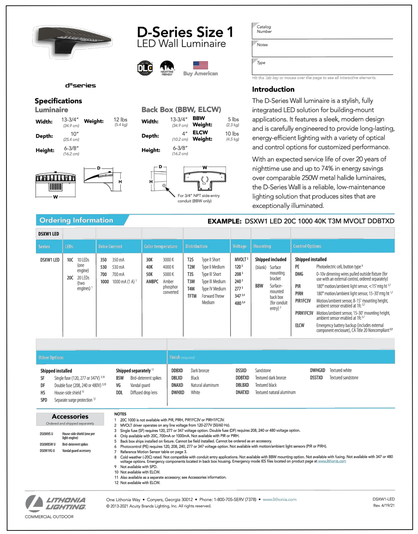
Street Improvement Plan
Goldfish Swim School
American Fork Utah

REGISTERED PROFESSIONAL ENGINEER
No. 147089
Roger D. Dudley
STATE OF UTAH

Revisions

Date
8-24-2021
Scale
1" = 10'
By
TD
Tracing No.
L -

Sheet No.
P - 1



D-Series Size 1
LED Wall Luminaire

Buy American

d*series

Specifications

Luminaire

Width: 13-3/4" (34.9 cm) Weight: 12 lbs (5.4 kg)
Depth: 10" (25.4 cm)
Height: 6-3/8" (16.2 cm)

Back Box (BBW, ELCW)

Width: 13-3/4" (34.9 cm) BBW Weight: 5 lbs (2.3 kg)
Depth: 4" (10.2 cm) ELCW Weight: 10 lbs (4.5 kg)
Height: 6-3/8" (16.2 cm)

For 3/4" NPT side-entry conduit (BBW only)

Catalog Number
Notes
Type

Hit the tab key or mouse over the page to see all interactive elements.

Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED

Series	LEDs	Color Correct	Color temperature	Distribution	Voltage	Mounting	Control Options
DSXW1 LED	10C 10 LEDs (one engine)	350 350 mA	30K 3000 K	T2S Type II Short	MVOLT[1]	Shipped included	Shipped included
	20C 20 LEDs (two engines)	530 530 mA	40K 4000 K	T2M Type II Medium	120[1]	PE Photoelectric cell, button type[2]	
		700 700 mA	50K 5000 K	T3S Type III Short	208[1]	DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately)	
		1000 1000 mA [1,2]	AMBPC Amber phosphor converted	T3M Type III Medium	240[1]	PIR 180° motion/ambient light sensor, <15' mtg ht[3]	
				T4M Type IV Medium	277[1]	PIR1 180° motion/ambient light sensor, 15-30' mtg ht[3]	
				TFTM Forward Throw Medium	347[1,3]	PIRTCW Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[3]	
					480[1,3]	PIRHTCW Motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 3fc[3]	
						ELCW Emergency battery backup (includes external components enclosure), CA Title 20 Noncompliant[4]	

Other Options	Finish (required)
Shipped installed: SF Single fuse (120, 277 or 347V)[1,5]; DF Double fuse (208, 240 or 480V)[1,5]; HS House-side shield[6]; SPD Separate surge protection[7]	Shipped separately[8]: BSW Bird deterrent spikes; WG Vandal guard; DDL Diffused drop lens. DDBDD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White; BSSXD Sandstone; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white; DSSTXD Textured sandstone

Accessories

Ordered and shipped separately

DSXW1 U Square pole shield (one per light engine)
DSXW1B U Bird deterrent spike
DSXW1W U Vandal guard accessory

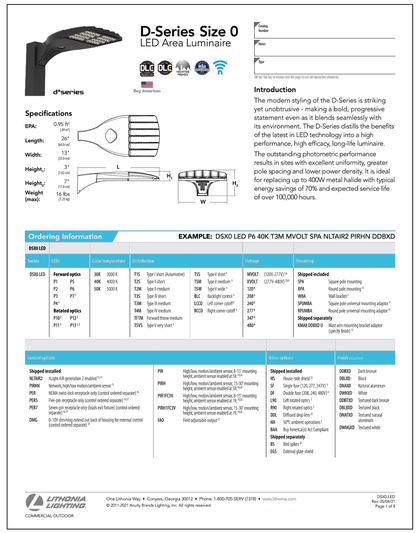
NOTES

1. 20C 1000 is not available with PIR, PIRH, PIRTCW or PIRHTCW.
2. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
3. Reference Motion Sensor table on page 3. Dimming driver standard. PIR, PIR1, PIRTCW and PIRHTCW require 208, 240 or 480 voltage option.
4. Only available with 20C, 700mA or 1000mA. Not available with PIR or PIR1.
5. Sets fuse drips installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
6. Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIR1).
7. Reference Motion Sensor table on page 3.
8. Shipped separately keyed for ease of ordering with conduit entry applications. Not available with SBBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com.
9. Not available with SPD.
10. Not available with PE.
11. Not available with keyless accessory; see Accessories information.
12. Not available with ELCW.

LITHONIA LIGHTING
COMMERCIAL OUTDOOR

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DSXW1 LED
Rev. 4/19/21



D-Series Size 0
LED Area Luminaire

Buy American

d*series

Specifications

EPA: 0.95 ft² (.09 m²)
Length: 26" (660 mm)
Width: 13" (330 mm)
Height$_1$: 3" (76 mm)
Height$_2$: 7" (178 mm)
Weight (max): 16 lbs (7.7 kg)

Catalog Number
Notes
Type

Hit the tab key or mouse over the page to see all interactive elements.

Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED

Series	LEDs	Color temperature	Distribution	Voltage	Mounting
DSX0 LED	Forward optics: P1 P5; P2 P6; P3 P7; P4*. Rotated optics: P10* P12*; P11* P13*[1,2]	30K 3000 K; 40K 4000 K; 50K 5000 K	T1S Type I short (Automotive); T2S Type II short; T2M Type II medium; T3S Type III short; T3M Type III medium; T4M Type IV medium; TFTM Forward throw medium; TSVS Type V very short*; TSS Type V short*; T5W Type V medium*; T5VW Type V wide*; BLC Backlight control*; LCCO Left corner cutoff*; RCCO Right corner cutoff*	MVOLT (120-277V)[3]; XVOLT (277V-480V)[3,4]; 120*; 208*; 240*; 277*; 347*; 480*[4]	Shipped included: SPA Square pole mounting; RPA Round pole mounting[5]; WBA Wall bracket*; SPUMBA Square pole universal mounting adaptor*; RPUMBA Round pole universal mounting adaptor*. Shipped separately: KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish)*[6]

Control options	Other options	Finish (required)
Shipped installed: NLTAIR2 nLight AIR generation 2 enabled[7,8]; PIRHN Network, high/low motion/ambient sensor[9]; PER NEMA twist-lock receptacle only (control ordered separately)[10]; PER5 Five-pin receptacle only (control ordered separately)[8,10]; PER7 Seven-pin receptacle only (leads exit fixture) (control ordered separately)[8,10]; DMG 0-10V dimming extend out back of housing for external control (control ordered separately)[11]; PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[7,8]; PIR1 High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 3fc[7,8]; PIRTCW Motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc[7,8]; PIRHTCW High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 3fc[7,8]; FAO Field adjustable output[12]	Shipped installed: HS House-side shield[13]; SF Single fuse (120, 277, 347V)[1]; DF Double fuse (208, 240, 480V)[1]; L90 Left rotated optics[2]; R90 Right rotated optics[2]; DDL Diffused drop lens[14]; PA DFC ambient sensor adjustment[15]; RAA Buy America(n) Act Compliant. Shipped separately: BS Bird spikes[14]; EGS External glare shield	DDBXD Dark bronze; DBLXD Black; DNAXD Natural aluminum; DWHXD White; DDBTXD Textured dark bronze; DBLBXD Textured black; DNATXD Textured natural aluminum; DWHGXD Textured white

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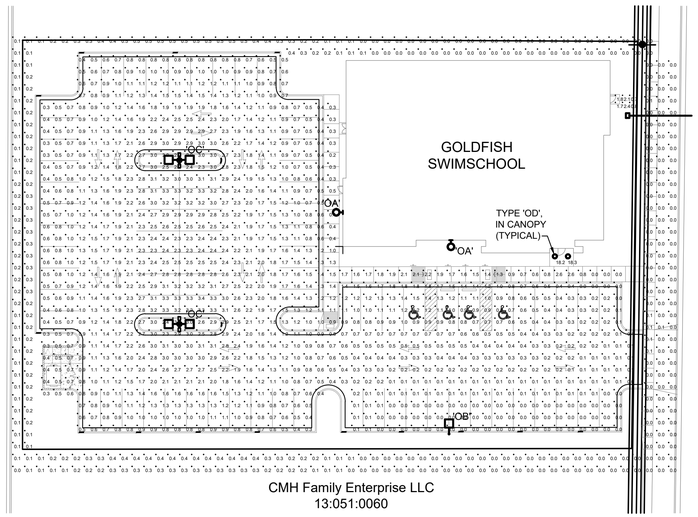
DSX0 LED
Rev. 05/04/21
Page 1 of 8

Schedule

Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Lumen Multiplier	Light Loss Factor	Wattage	Efficiency	Distribution	Plot	Notes
	OA		3	Lithonia Lighting	DSXW1 LED 20C 1000 AMBPC T3M MVOLT	DSXW1 LED WITH (2) 10 LED LIGHT ENGINES, TYPE T3M OPTIC, AMBPC, @ 1000mA.	LED	1	DSXW1_LED_20C_1000_AMBPC_T3M_MVOLT.ies	4335	1	0.9	73.2	100%	TYPE IV, MEDIUM, BUG RATING: B1 - U0 - G2		
	OB		1	Lithonia Lighting	DSX0 LED P4 40K T3M MVOLT HS	DSX0 LED P4 40K T3M MVOLT with houseside shield	LED	1	DSX0_LED_P4_40K_T3M_MVOLT_HS.ies	8310	1	0.9	92	100%	TYPE III, SHORT, BUG RATING: B1 - U0 - G2		
	OC		2	Lithonia Lighting	DSX0 LED P3 40K T5M MVOLT	DSX0 LED P3 40K T5M MVOLT	LED	1	DSX0_LED_P3_40K_T5M_MVOLT.ies	8770	1	0.9	142	100%	TYPE VS, BUG RATING: B3 - U0 - G2		
	OD		2	Lithonia Lighting	LDN6 40/15 LO6WR	6IN LDN, 4000K, 1500LM, WHITE, CRI80		1	LDN6_40_15_LO6WR.ies	1389	1	0.9	17.52	100%	DIRECT, SC-0=1.02, SC-90=1.03		
	XR		3	Lithonia Lighting	ELA Q L0304	ELM2 LED REMOTE LAMP HEAD	ONE 1.5-WATT LED ASSEMBLY	1	ELA_Q_L0304.ies	80	1	0.9	0	90%	4 X 4		

Statistics

Description	Symbol	Min	Max/Min	Avg	Max	Avg/Min
PARKING, DRIVES & WALKWAYS	+	0.0 fc	N/A	1.2 fc	18.3 fc	N/A
PROPERTY LINE	+	0.0 fc	N/A	0.1 fc	0.5 fc	N/A
SECONDARY ENTRANCE	+	0.7 fc	3.4:1	1.6 fc	2.4 fc	2.3:1



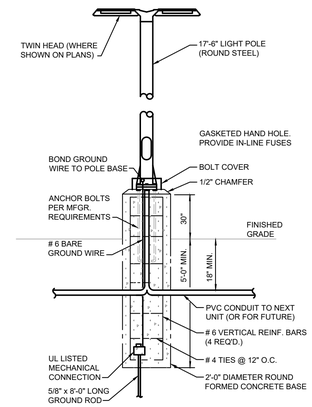
CMH Family Enterprise LLC
13:051:0060

SITE PLAN - LIGHTING PHOTOMETRICS

Scale: 1" = 30'-0"

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL VERIFY ALL NEW AND EXISTING UNDERGROUND UTILITY SERVICES TO AVOID ANY INTERFERENCES.
2. WALL MOUNT TYPE 'OA' FIXTURES AT 18'-0" ABOVE FINISHED GRADE.
3. FIXTURES TYPES 'OB' & 'OC' SHALL BE POLE MOUNTED AT 20'-0" ABOVE FINISH GRADE.
4. VERIFY EXACT LOCATION OF ALL SITE POLE LIGHTS WITH CIVIL PLANS PRIOR TO INSTALLATION.

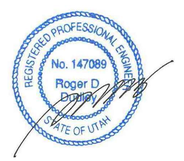


TYPES 'OB' & 'OC' LIGHTING POLE - CONCRETE BASE DETAIL

N.T.S.

NOTES:

1. POLE BASES OVER 36" FROM CURB SHALL NOT EXCEED 6" ABOVE GRADE PER LOCAL ORDINANCE.
2. LOCATE ALL POLE BASES WITHIN 36" FROM CURB.



NOT FOR CONSTRUCTION

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Client:

Goldfish Swim Schools

Project:

GSS - American Fork, UT
348 South 500 East
American Fork, Utah

Issued	Description	By
06.07.2021	TRC Review	JK

Brand Standard:

All Brand Standards must be followed - No deviation permitted without prior written Goldfish Franchise approval.

Seal:

Note:

Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:

Site Plan - Lighting Photometrics

Project Number:

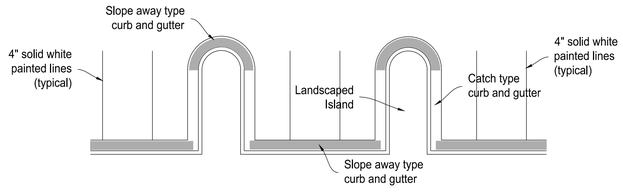
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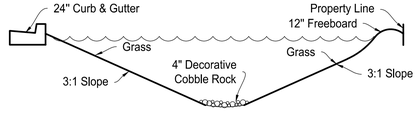
ES.102

NORTH
1" = 20'

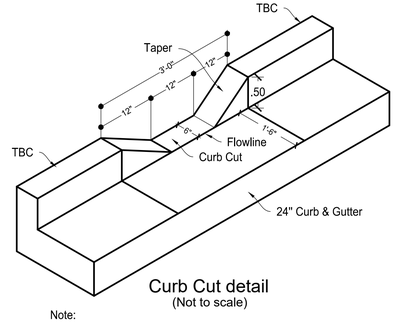




Curb and gutter detail

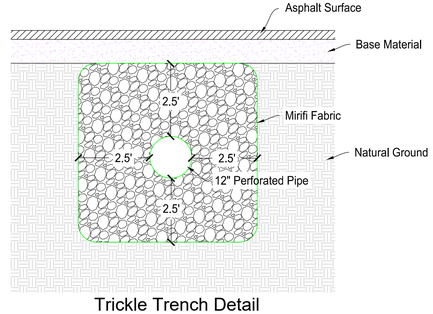


Drainage Swale Detail



Curb Cut detail
(Not to scale)

Note:
Landscaping adjacent to curb cut is to be installed 3" below flowline of gutter to prevent blockage.



Trickle Trench Detail
(Not to scale)
150 LF 6'x6' trench
= 1,620 cf potential storage

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

CAUTION!!! Notice to contractors

The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and where possible from measurements taken in the field. the information is not to be considered exact or complete. The Contractor must notify the utility location center at least 48 hours prior to any excavation to request the exact location of the utilities in the field. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plan.



DUDLEY AND ASSOCIATES
ENGINEERS PLANNERS SURVEYORS
353 EAST 1200 SOUTH, OREM, UTAH
801-224-1252

Grading and Drainage Plan

Goldfish Swim School
American Fork Utah

REGISTERED PROFESSIONAL ENGINEER
No. 147089
Roger D. Dudley
STATE OF UTAH

Revisions
1-20-2022 Sump addition

Date 1-14-2022
PERMITS
Scale
1" = 20'
By
TD
Tracing No.
L - 14630

Sheet No.
C - 4.0

Goldfish Swim School Basin B

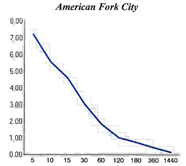
Detention Pond Sizing

Date: 27-Dec-2021
Area = 0.860 = total acreage of site
C = 0.62 = weighted run-off coefficient

	C	Area	Weighted C
Landscaping :	0.20	0.330	0.07
Building:	0.80	0.080	0.06
Hard Surface:	0.90	0.450	0.41

Lapsed Time (min)	Rainfall Intensity (in/hr)	Total Rainfall (in)	Rainfall Volume (cf)	Release Volume (cf)	Required Storage (cf)
A	B	C	D	E	F
5	7.20	0.600	1165	6	1159
10	5.58	0.930	1806	11	1795
15	4.60	1.150	2233	17	2216
30	3.04	1.520	2952	34	2917
60	1.83	1.830	3554	69	3485
120	1.03	2.050	3981	138	3843
180	0.74	2.210	4292	207	4085
360	0.42	2.530	4913	414	4500
1440	0.15	3.480	6758	1655	5103

Intensity - Duration - Frequency Curve
100-Year Storm Event
American Fork City



Q_p = 2.2 cfs = 980 gpm
T_c = 20 min
I_p = 4.08 in/hr
Storage = 5,103 cf = 0.117 Acre-feet

Notes:
A, B & C are based on American Fork City's historical rainfall data:
B = C / A x 60 min/hr
C = precipitation based upon aforementioned data.
D = C / (12 inches/foot) x total acreage of site x 43,560 sf/acre x weighted run-off coefficient, where Q=CIA and V=CIAt
E = an allowable release rate(gpm/acre) x total acreage of site x A / 7.481 gal/cf or another release rate such as percolation or release into storm system
F = D - E to determine storage volume

Orifice Sizing

$$Q = C_d * A_o * (2 * g * h)^{1/2}, \text{ where:}$$

Q =	8.6 gpm	= the maximum allowable release rate
C_d =	0.62	= coefficient of discharge; engineering judgement required
A_o =	A_o in²	= unknown cross-sectional orifice area
g =	32.2 feet/s²	= acceleration of gravity
h =	4.0 feet	= variable, site-dependant head; engineering judgement required
A =	0.860 acres	= total acreage of site

Maximum Outlet Design Requirements

A_o =	**0.3**	square-inch cross-sectional orifice area
l =	**0.5**	inches = edge length of a square orifice
d =	**0.6**	inches = diameter of a circular orifice

STORM MASTER 4.WB2: DETENTION POND AND ORIFICE SIZING

American Fork Sump Capacity Calculations
GOLDFISH SWIM SCHOOL
1/20/2022
SUB BASIN B

SUMP SPECIFICATIONS		
Percolation Rate (min/in):	25.00	
Void ratio in drain rock:	0.30	
Height of top cone section (ft):	3.0	(A)
Height of manhole section (ft):	4.0	(B)
Diameter of manhole section (ft):	5.0	(C)
Thickness of section (in):	3.00	(D)
Number of manhole sections:	2	
Excavation beyond outside of manhole (ft):	5.00	(E)
Bottom of manhole section to bottom of rock (ft):	2.00	(F)
Depth to top of drain rock (ft):	2.50	(G)
Depth to bottom of sections (ft):	11.00	(H)
Depth to bottom of drain rock (ft):	13.00	(I)
Height of drain rock (ft):	9.50	(J)
Area available for percolation (ft^2):	651.29	
Calculated Percolation Capacity (ft^3/sec):	0.0362	
Additional Outflow (ft^3/sec):	0.000	
Storage in Manhole Sections (ft^3):	166.90	
Storage in drain rock voids (ft^3):	535.03	
Total storage in sump (ft^3):	701.93	

BASIN	
Total Area (acres):	0.86
Average Runoff Coefficient:	0.62
Number of sumps in area:	2
Max required storage (from below) (ft^3):	1495.844
Storage available in sump(s) (ft^3):	1403.85995
Additional storage to be provided (ft^3):	91.984

time (min)	rain (i) in/hr	C	Area (Acre)	Q (CIA)	vol (ft^3)	perc+outflow (ft^3)	req'd storage (ft^3)
5	7.24	0.62	0.860	3.860	579.055	21.710	557.345
10	5.60	0.62	0.860	2.986	895.776	43.419	852.357
15	4.61	0.62	0.860	2.458	1106.123	65.129	1040.994
30	3.04	0.62	0.860	1.621	1458.835	130.258	1328.577
60	1.83	0.62	0.860	0.976	1756.361	260.517	1495.844
120	1.03	0.62	0.860	0.549	1977.106	521.033	1456.072
180	0.74	0.62	0.860	0.395	2130.667	781.550	1349.117
360	0.42	0.62	0.860	0.224	2418.595	1563.099	855.496
720	0.33	0.62	0.860	0.176	3800.650	3126.199	674.451
1440	0.15	0.62	0.860	0.080	3455.136	6252.398	-2797.262

k:\3-02-11400\project studies\GOLDFISH 100yr Sump Calcs

Goldfish Swim School Basin A

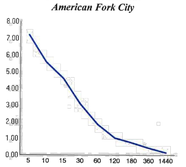
Detention Pond Sizing

Date: 27-Dec-2021
Area = 0.610 = total acreage of site
C = 0.76 = weighted run-off coefficient

	C	Area	Weighted C
Landscaping :	0.20	0.110	0.02
Building:	0.80	0.090	0.07
Hard Surface:	0.90	0.410	0.37

Lapsed Time (min)	Rainfall Intensity (in/hr)	Total Rainfall (in)	Rainfall Volume (cf)	Release Volume (cf)	Required Storage (cf)
A	B	C	D	E	F
5	7.20	0.600	1008	4	1004
10	5.58	0.930	1563	8	1555
15	4.60	1.150	1933	12	1921
30	3.04	1.520	2555	24	2530
60	1.83	1.830	3076	49	3027
120	1.03	2.050	3445	98	3348
180	0.74	2.210	3714	147	3568
360	0.42	2.530	4252	294	3959
1440	0.15	3.480	5849	1174	4675

Intensity - Duration - Frequency Curve
100-Year Storm Event
American Fork City



Q_p = 1.9 cfs = 848 gpm
T_c = 20 min
I_p = 4.08 in/hr
Storage = 4,675 cf = 0.107 Acre-feet

Notes:
A, B & C are based on American Fork City's historical rainfall data:
B = C / A x 60 min/hr
C = precipitation based upon aforementioned data.
D = C / (12 inches/foot) x total acreage of site x 43,560 sf/acre x weighted run-off coefficient, where Q=CIA and V=CIAt
E = an allowable release rate(gpm/acre) x total acreage of site x A / 7.481 gal/cf or another release rate such as percolation or release into storm system
F = D - E to determine storage volume

Orifice Sizing

$$Q = C_d * A_o * (2 * g * h)^{1/2}, \text{ where:}$$

Q =	6.1 gpm	= the maximum allowable release rate
C_d =	0.62	= coefficient of discharge; engineering judgement required
A_o =	A_o in²	= unknown cross-sectional orifice area
g =	32.2 feet/s²	= acceleration of gravity
h =	4.0 feet	= variable, site-dependant head; engineering judgement required
A =	0.610 acres	= total acreage of site

Maximum Outlet Design Requirements

A_o =	**0.2**	square-inch cross-sectional orifice area
l =	**0.4**	inches = edge length of a square orifice
d =	**0.5**	inches = diameter of a circular orifice

STORM MASTER 4.WB2: DETENTION POND AND ORIFICE SIZING

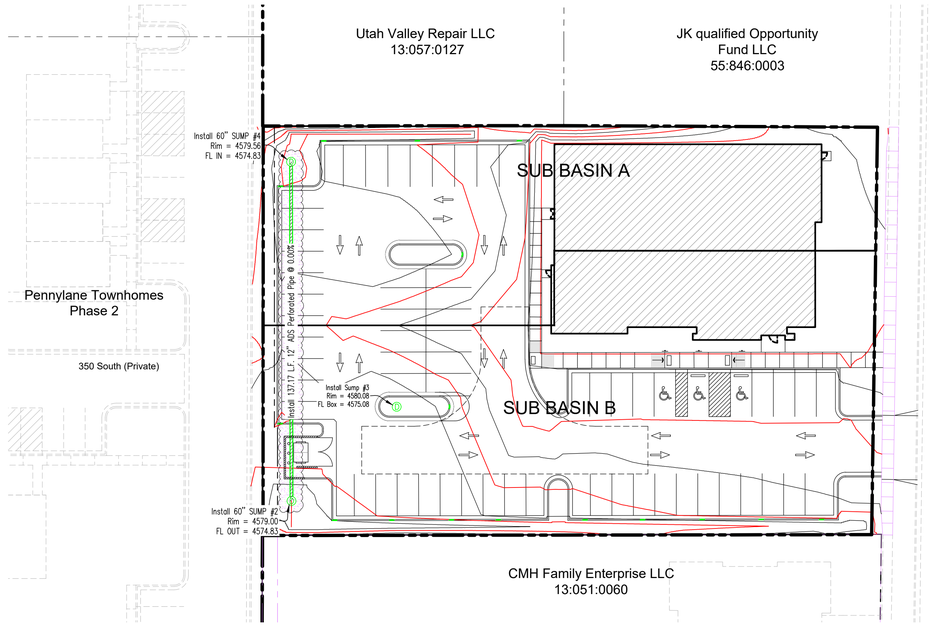
American Fork Sump Capacity Calculations
GOLDFISH SWIM SCHOOL
1/20/2022
SUB BASIN A

SUMP SPECIFICATIONS		
Percolation Rate (min/in):	5.00	
Void ratio in drain rock:	0.30	
Height of top cone section (ft):	3.0	(A)
Height of manhole section (ft):	4.0	(B)
Diameter of manhole section (ft):	5.0	(C)
Thickness of section (in):	3.00	(D)
Number of manhole sections:	2	
Excavation beyond outside of manhole (ft):	5.00	(E)
Bottom of manhole section to bottom of rock (ft):	2.00	(F)
Depth to top of drain rock (ft):	2.50	(G)
Depth to bottom of sections (ft):	11.00	(H)
Depth to bottom of drain rock (ft):	13.00	(I)
Height of drain rock (ft):	9.50	(J)
Area available for percolation (ft^2):	651.29	
Calculated Percolation Capacity (ft^3/sec):	0.1809	
Additional Outflow (ft^3/sec):	0.000	
Storage in Manhole Sections (ft^3):	166.90	
Storage in drain rock voids (ft^3):	535.03	
Total storage in sump (ft^3):	701.93	

BASIN	
Total Area (acres):	0.61
Average Runoff Coefficient:	0.76
Number of sumps in area:	1
Max required storage (from below) (ft^3):	942.764
Storage available in sump(s) (ft^3):	701.929973
Additional storage to be provided (ft^3):	240.834

time (min)	rain (i) in/hr	C	Area (Acre)	Q (CIA)	vol (ft^3)	perc+outflow (ft^3)	req'd storage (ft^3)
5	7.24	0.76	0.610	3.356	503.470	54.274	449.195
10	5.60	0.76	0.610	2.596	778.848	108.549	670.299
15	4.61	0.76	0.610	2.137	961.738	162.823	798.915
30	3.04	0.76	0.610	1.409	1268.410	325.646	942.764
60	1.83	0.76	0.610	0.848	1527.098	651.291	875.807
120	1.03	0.76	0.610	0.478	1719.029	1302.583	416.446
180	0.74	0.76	0.610	0.343	1852.546	1953.874	-101.329
360	0.42	0.76	0.610	0.195	2102.890	3907.749	-1804.859
720	0.33	0.76	0.610	0.153	3304.541	7815.497	-4510.956
1440	0.15	0.76	0.610	0.070	3004.128	15630.994	-12626.866

k:\3-02-11400\project studies\GOLDFISH 100yr Sump Calcs



Sub-Basin Diagram

GOLDFISH SWIM SCHOOL
DRAINAGE INFORMATION
5/21/2021

TOTAL PROJECT	AREA (sf)	AREA (ac)	%
TOTAL AREA	43,937	1.01	100
BUILDING FOOTPRINT AREA	8,540	0.20	19.44%
HARD SURFACE AREA	27,478	0.63	62.54%
LANDSCAPING AREA	7,919	0.18	18.02%
TOTAL IMPERVIOUS AREA	36,018	0.83	81.98%
WATER QUALITY VOLUME	WQV = RvDA		
Rv = 0.91(I)-0.0204	0.7256		
D	0.0358		0.43" 0.0358'
A	43,937	1.01	
TOTAL WATER QUALITY VOLUME (CF)			1,141
TOTAL DETENTION REQUIREMENT			2,476
LESS WQV THROUGH INFILTRATION			1,141
TOTAL DETENTION VOLUME REQUIRED.			1,335

SUB BASIN A (NORTH BASIN)	AREA (sf)	AREA (ac)	%
TOTAL AREA	17,216	0.40	100
BUILDING FOOTPRINT AREA	4,970	0.11	28.87%
HARD SURFACE AREA	8,236	0.19	47.84%
LANDSCAPING AREA	4,010	0.09	23.29%
TOTAL IMPERVIOUS AREA	13,206	0.30	76.71%
WATER QUALITY VOLUME	WQV = RvDA		
Rv = 0.91(I)-0.0204	0.6776		
D	0.0358		
A	17,216	0.40	
TOTAL WATER QUALITY VOLUME (CF)			418
SUB BASIN DETENTION REQUIREMENT			933
LESS WQV THROUGH INFILTRATION			418
TOTAL DETENTION VOLUME REQUIRED.			515

SUB BASIN B (SOUTH)

TOTAL AREA	26,667	0.61	100
BUILDING FOOTPRINT AREA	3,800	0.09	14.25%
HARD SURFACE AREA	17,934	0.41	67.25%
LANDSCAPING AREA	4,933	0.11	18.50%
TOTAL IMPERVIOUS AREA	21,734	0.50	81.50%
WATER QUALITY VOLUME	WQV = RvDA		
Rv = 0.91(I)-0.0204	0.7213		
D	0.0358		
A	26,667	0.61	
TOTAL WATER QUALITY VOLUME (CF)			689
SUB BASIN DETENTION REQUIREMENT			1,558
LESS WQV THROUGH INFILTRATION			689
TOTAL DETENTION VOLUME REQUIRED.			869



Drainage Notes:

Refer to Drainage Report for Geotechnical Report information and Percolation Rate data.

DUDLEY AND ASSOCIATES
ENGINEERS PLANNERS SURVEYORS
353 EAST 1200 SOUTH, OREM, UTAH
801-224-1252

Goldfish Swim School

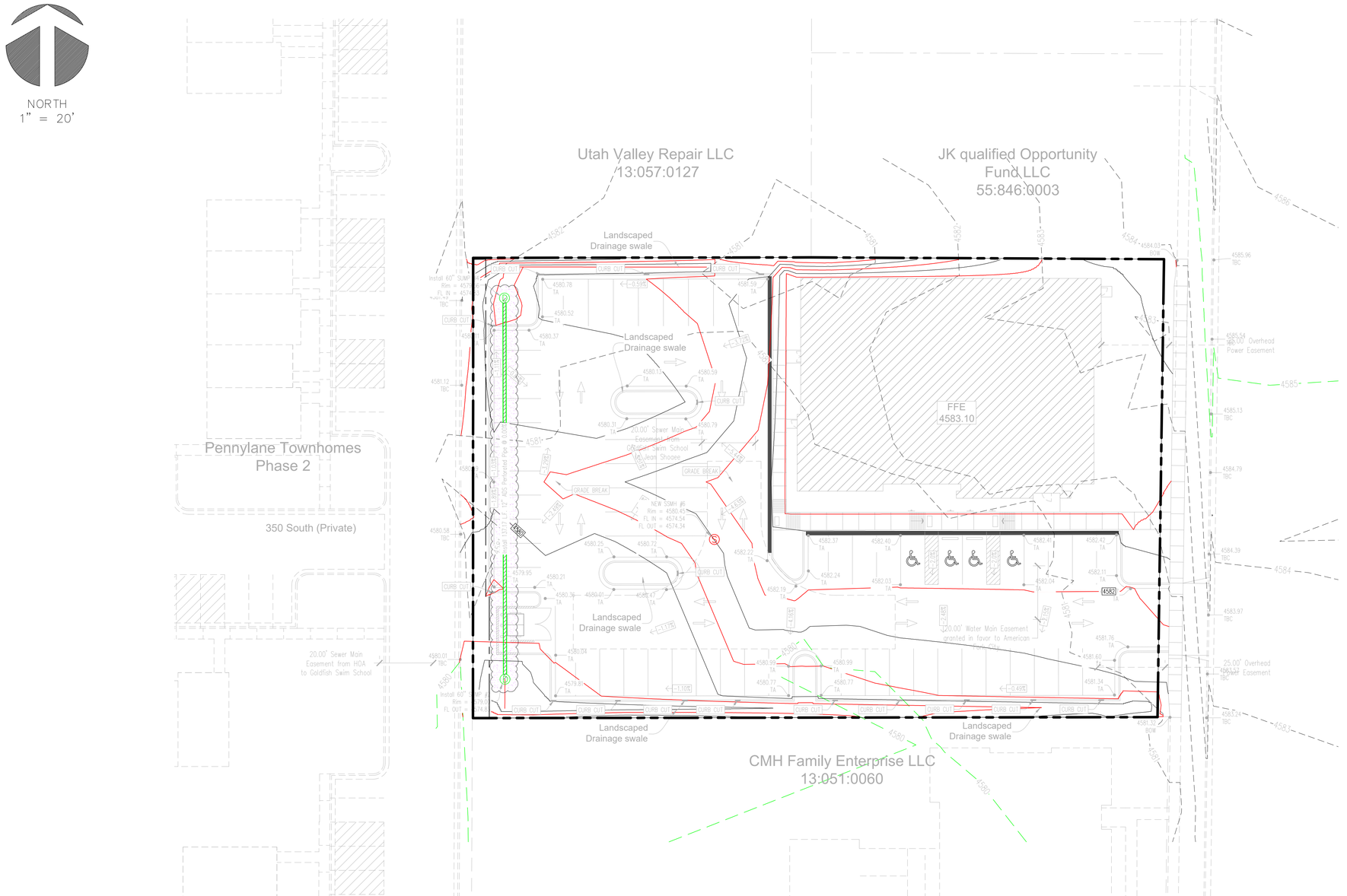
Drainage Calculations

American Fork Utah

Revisions
1-20-2022 (sump calcs)

Date 1-14-2022
PERMITS
Scale
1" = 20'
By
TD
Tracing No.
L - 14630

Sheet No.
C - 4.1



NOTES:

This plan is to be used to control storm water runoff and reduce pollutants in storm water runoff until construction is complete and the subject site is in operation.

THE FOLLOWING BEST MANAGEMENT PRACTICES (BMP'S) ARE TO BE USED AS A PART OF THE CONSTRUCTION SITE STORM WATER MANAGEMENT PLAN FOR THIS SITE

1. Contaminated or Erodible Surface Areas (CESA) Prevent the discharge, pollutants, and storm water from contaminated or erodible surface areas by maintaining undisturbed site until construction of Phase II is completed.

2. Dust Controls (DC) Dust control measures including vegetation, seeding, etc. to stabilize site from wind erosion and reduce dust until site is completely developed.

3. Detention/Infiltration Device Maintenance (DIDM) Detention basin and accompanying facilities will be regularly maintained and corrected to promote effective storm drain pollutant removal for pond, piping, and boxes.

4. Material Storage (MS) Any hazardous, toxic, or chemical substances will be stored and controlled inside building areas. No control substances will be discharged into storm water or sewage systems.

5. Portable Toilets (PT) Temporary on site sanitary facilities will be furnished and maintained during all construction activity until on site facilities are constructed and usable.

6. Stabilized Construction Entrance and Wash Area (SCEWA) A stabilized pad of crushed stone located at the construction entrance as shown will be provided and maintained during all construction activities.

7. Spill Cleanup (SCU) All on site materials used in construction will be maintained on site to prevent harmful materials from entering off site receiving waters.

8. Silt Fencing (SF) placed on the perimeter of the project where there is potential runoff from site to adjacent streets, or properties.

- **A** → **Construct Stabilized Construction Entry (See Detail SCE)**
- **B** → **Construct Silt Fencing as needed to prevent runoff onto existing street, adjacent properties and existing ditch. (See detail SF)**
- **C** → **Install Filter Fabric in existing downstream and/or recently installed inlet boxes or manholes to prevent silt buildup.**

  Portable toilet locations are to be determined by the contractor.
- **D** → **Contractor Washdown area in sediment basin (see detail CWM, SCU)**
- **E** → **Material Storage Area (see detail MS)**

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

CAUTION!!! Notice to contractors

The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and where possible from measurements taken in the field. the information is not to be considered exact or complete. The Contractor must notify the utility location center at least 48 hours prior to any excavation to request the exact location of the utilities in the field. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plan.



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Goldfish Swim School

Erosion Control Plan

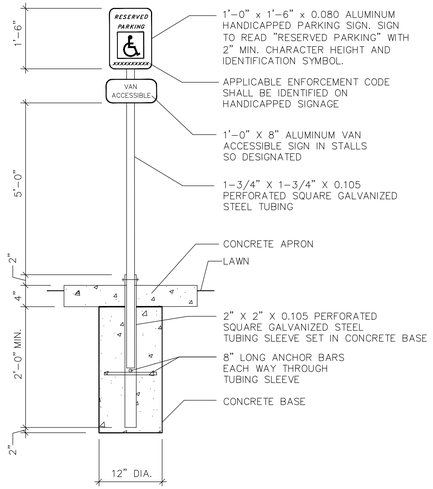
American Fork Utah

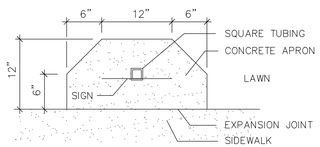
REGISTERED PROFESSIONAL ENGINEER
No. 147089
Roger D Dudley
STATE OF UTAH

Revisions

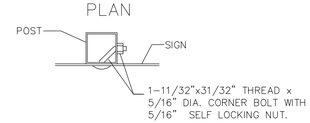
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Sheet No.
C - 6.0

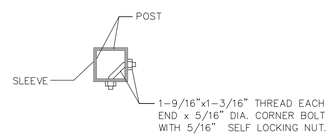




PLAN



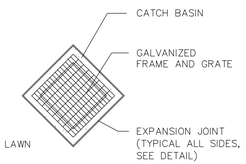
SIGN MOUNTING



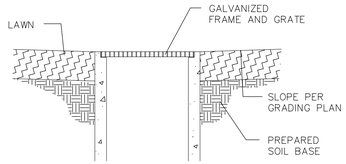
ANCHOR ASSEMBLY

TYPICAL HANDICAPPED PARKING SIGN MOUNTING AND ANCHOR

A HANDICAP PARKING SIGN
Not to Scale

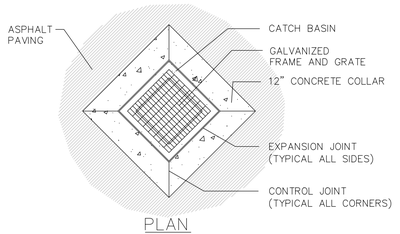


PLAN

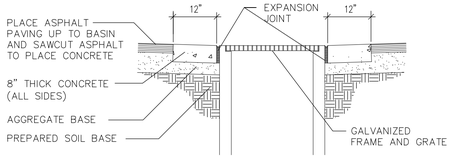


SECTION

E BASIN IN LANDSCAPE
Not to Scale

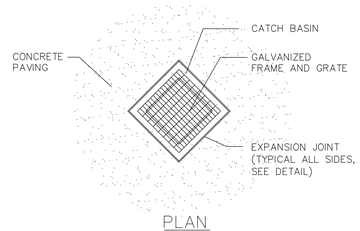


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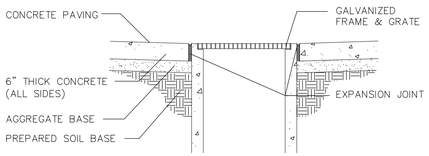


SECTION

BASIN IN ASPHALT WITH 12" CONCRETE COLLAR
C NOT TO SCALE



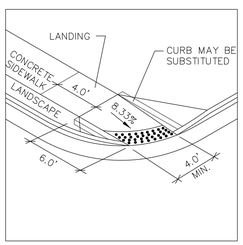
PLAN



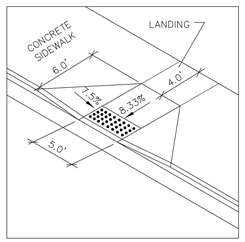
SECTION

D BASIN IN CONCRETE PAVING
Not to Scale

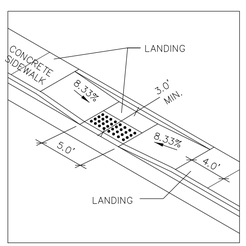
NOTES:
1. PROVIDE DETECTABLE WARNING PANELS PER ADA REQUIREMENTS. (MINIMUM OF 2' DEEP BY THE WIDTH OF RAMP).
2. ALL LANDINGS MUST HAVE 1:48 CROSS SLOPE AND RUNNING SLOPE. LANDING MUST BE AS WIDE AS THE RAMP.
3. CROSS SLOPE ON RAMP MUST BE 1:48 OR LESS.
4. COUNTER SLOPES OF ADJOINING GUTTERS AND PAVING ADJACENT TO THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20.



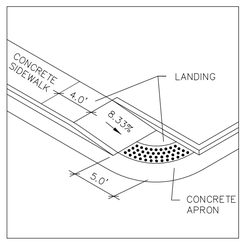
TYPE A



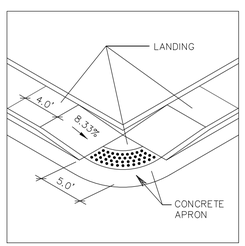
TYPE B



TYPE C

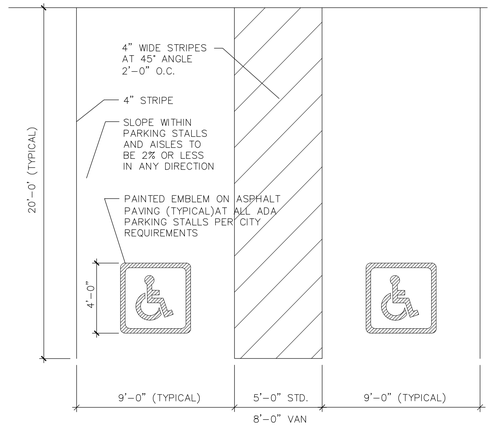


TYPE D



TYPE E

F CURB RAMPS
Not to Scale



H ADA PARKING
Not to Scale

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801-224-1252

Goldfish Swim School

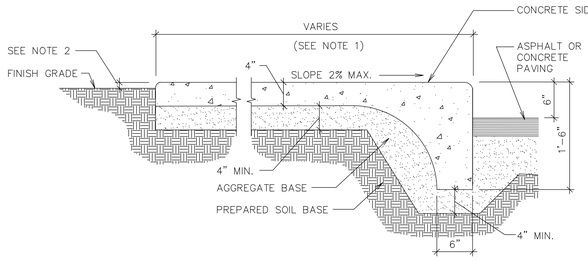
DETAIL SHEET

American Fork Utah

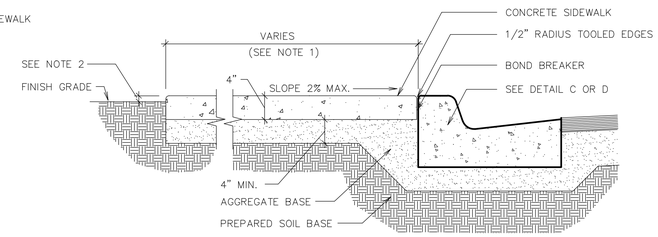
Revisions

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Scale	not to scale
By	TD
Tracing No.	

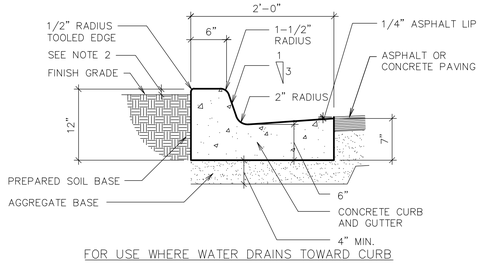
Sheet No.
C - 5.0



A INTEGRAL SIDEWALK & CURB
1" = 1'-0"

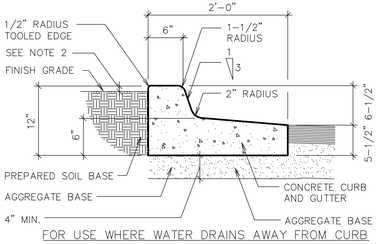


B SIDEWALK, CURB AND GUTTER
1" = 1'-0"



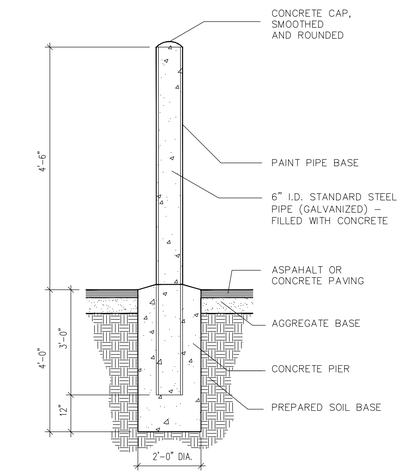
FOR USE WHERE WATER DRAINS TOWARD CURB

C CURB AND GUTTER
1" = 1'-0"

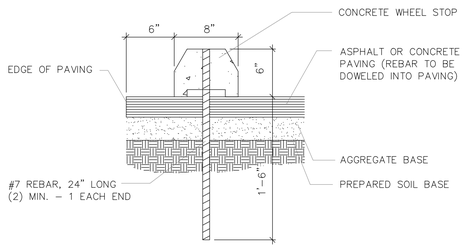


FOR USE WHERE WATER DRAINS AWAY FROM CURB

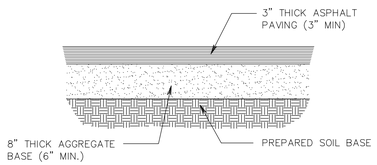
OPEN FACE
D CURB AND GUTTER
1" = 1'-0"



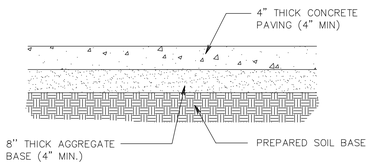
B CONCRETE BOLLARD
Not to Scale



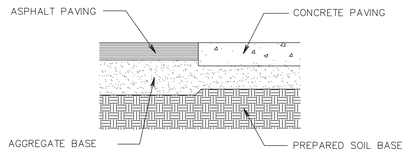
Q TYPICAL CONCRETE WHEEL STOP
Not to Scale



K ASPHALT PAVING
1" = 1'-0"

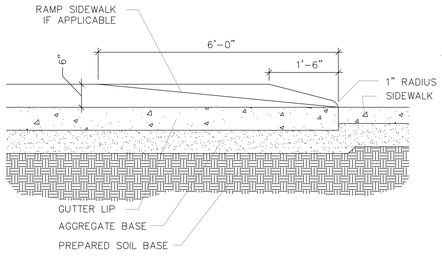


L CONCRETE PAVING
1" = 1'-0"

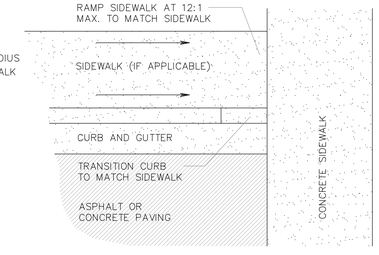


REFER TO DETAILS K AND L FOR
AGGREGATE BASE AND PAVING

JOINT BETWEEN
M ASPHALT AND CONCRETE PAVING
1" = 1'-0"

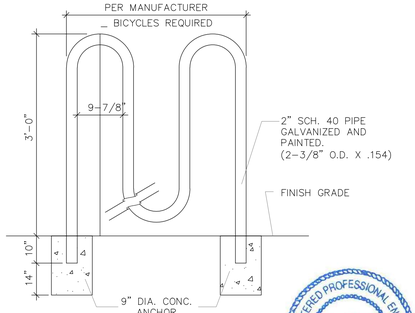


SECTION



PLAN

R CURB TRANSITION
Not to Scale



S BICYCLE RACK
Not to Scale

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Goldfish Swim School

DETAIL SHEET

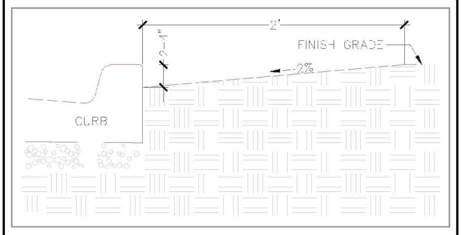
American Fork, Utah

Revisions

Date	11-18-2021
Scale	not to scale
By	TD
Tracing No.	

Sheet No.
C - 5.1

BMP: Curb Sedimentation Trap — CST



Description:
A temporary sediment trap formed by excavation behind the curb

Application:
- Interception of runoff containing sediment from the lot during construction
- Retain sediment on the lot during construction

Installation/Application Criteria:
- Excavate soil behind curb to a depth of 2-4 inches
- Create slope of 2% from finished grade to curb for a distance of approximately 2 feet

Limitations:
No limitations

Maintenance:
- Inspect after each rainfall event
- Remove accumulated sediment as it reaches 2/3 height of available storage

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

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Engineers Planners Surveyors
353 East 1200 South
Orem, Utah

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

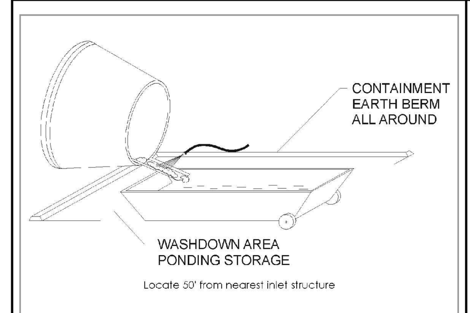
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$ O & M Costs
$$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual and Paradigm Engineering BMP Fact Sheet (Cut Back Curb)
Stormwater Discharge management from Construction Activities 2005

BMP: Concrete Waste Management — CWM



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.

Application:
This technique is applicable to all types of sites.

Installation/Application Criteria:
- Store dry materials under cover, away from drainage areas.
- Minimize excess mixing of fresh concrete, mortar 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.

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

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Orem, Utah

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

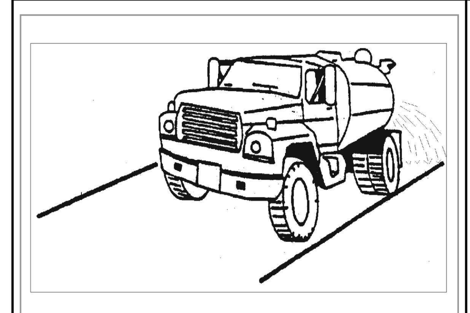
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$ Capital Costs
$ O & M Costs
$$ Maintenance
$$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Dust Controls — DC



Description:
Dust control measures are used to stabilize soil from wind erosion and reduce dust by construction activities.

Application:
Dust control is useful in any construction area where dust is generated. Street sweeping is limited to areas that are paved.

Installation/Application Criteria:
- Water may be sprayed on the ground surface to moisten dry soils, making it less susceptible to wind erosion. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
- Two kinds of street weepers are common: brush and vacuum. Vacuum sweepers are more efficient and work best when the area is dry.
- Mechanical equipment should be operated according to the manufacturers' recommendations and should be inspected regularly.

Limitations:
- Water sprayed from water trucks must be done at a rate such that the water is absorbed in the soil; if excessive amounts of water are used, it may run off, carrying soil with it.
- Street sweeping is labor and equipment intensive and may not be effective for all pollutants.

Maintenance:
- If excess water results from water spraying, dust-contaminated waters should not be allowed to run off site. Areas may need to be resprayed to keep dust from spreading.

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

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Orem, Utah

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

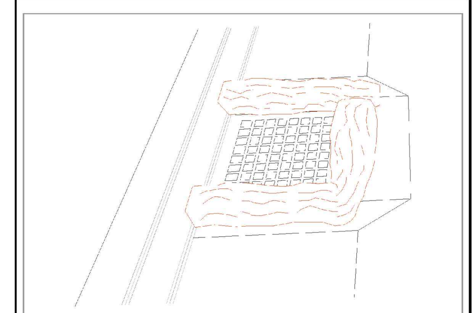
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$ O & M Costs
$$ Maintenance
$$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Pleasant Grove City Stormwater Technical Manual and Best Management Practices
Stormwater Discharge management from Construction Activities 2005

BMP: Inlet Protection – Wattle — IP-W



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 or straw 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

Objectives:
☑ Housekeeping Practices
☐ Contain Waste
☐ Minimize Disturbed Areas
☐ Stabilize Disturbed Areas
☐ Protect Slopes/Channels
☑ Control site Perimeter
☑ Control Internal Erosion

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Orem, Utah

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

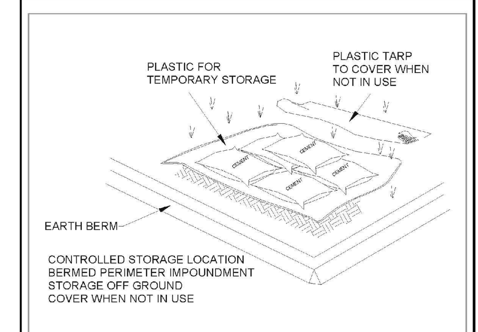
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$ O & M Costs
$$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Material Storage — MS



Description:
Controlled storage of on-site materials.

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

Installation/Application Criteria:
- Designate a secured area with limited access as the storage 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.

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

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Orem, Utah

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

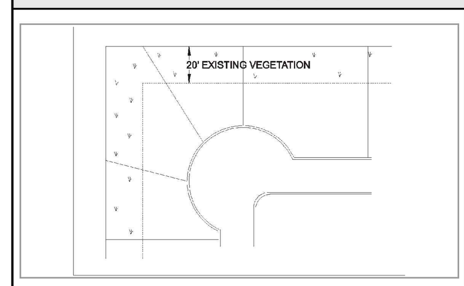
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$$ O & M Costs
$$ Maintenance
$$$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Preservation of Existing Vegetation — PEV



Description:
Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs and/or grasses that serve as erosion controls.

Application:
This technique is applicable to all types of sites. Areas where preserving vegetation can be particularly beneficial are floodplains, wetlands, stream banks, steep slopes, and other areas where erosion controls would be difficult to establish, install, or maintain.

Installation/Application Criteria:
- Clearly mark, flag or fence vegetation or areas where vegetation should be preserved.
- Prepare landscaping plans which include as much existing vegetation as possible and state proper care during and after construction.
- Define and protect with berms, fencing, signs, etc. a setback area from vegetation to be preserved.
- Propose landscaping plans which do not include plant species that compete with the existing vegetation.
- Do not locate construction traffic routes, spoil piles, etc. where significant adverse impact on existing vegetation may occur.

Limitations:
- Requires forward planning by the owner/developer, contractor and design staff.
- For sites with diverse topography, it is often difficult and expensive to save existing trees while grading the site satisfactorily for the planned development.
- May not be cost effective with high land costs.

Maintenance:
- Inspection and maintenance requirements for protection of vegetation are low.
- Maintenance of native trees or vegetation should conform to landscape plan specifications.

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

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Orem, Utah

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

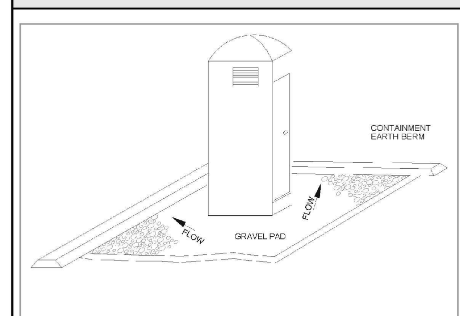
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$ Capital Costs
$ O & M Costs
$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Portable Toilets — PT



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.

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

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Orem, Utah

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

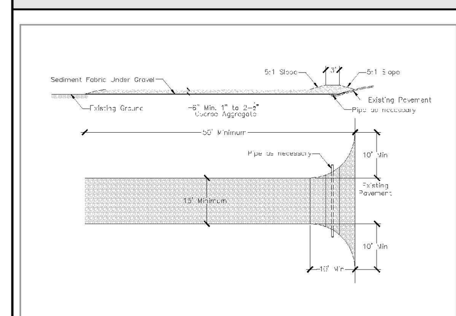
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$$ O & M Costs
$$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Stabilized Construction Entrance — SCE



Description:
A stabilized pad of crushed stone located where construction traffic enters or leaves the site from or to paved surface.

Application:
At any point of ingress or egress at a construction site where adjacent traveled way is paved. Generally applies to sites over 2 acres unless special conditions exist.

Installation/Application Criteria:
- Clear and grub area and grade to provide maximum slope of 2%.
- Compact subgrade and place filter fabric if desired (recommended for entrances to remain for more than 3 months.
- Place coarse aggregate, 1 to 2-1/2 inches in size, to a minimum depth of 8 inches.

Limitations:
- Requires periodic top dressing with additional stones.
- Should be used in conjunction with street sweeping on adjacent public right-of-way.

Maintenance:
- Inspect daily for loss of gravel or sediment buildup.
- Inspect adjacent roadway for sediment deposit and clean by sweeping or shoveling.
- Repair entrance and replace gravel as required to maintain control in good working condition.
- Expand stabilized area as required to accommodate traffic and prevent erosion at driveways.

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

Dudley & Associates, Inc.
Engineers Planners Surveyors
353 East 1200 South
Orem, Utah

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

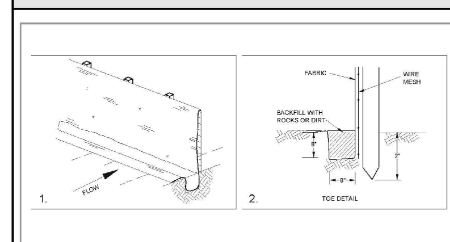
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$$ Capital Costs
$$ O & M Costs
$$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Silt Fence — SF



Description:
A temporary sediment barrier consisting of entrenched filter fabric stretched across and secured to supporting posts.
Application:
- Perimeter control: place barrier at down-gradient limits of disturbance
- Sediment barrier: place barrier at toe of slope or soil stockpile
- Protection of existing waterways: place barrier at top of stream bank
- Inlet protection: place fence surrounding catchbasins

Installation/Application Criteria:
- Place posts 6 feet apart on center along contour (or use preassembled unit) and drive 2 feet minimum into ground. Excavate an anchor trench immediately up-gradient of posts.
- Secure wire mesh (14 gage min. with 6-inch openings) to upslope side of posts. Attach with heavy duty 1 inch long wire staples, tie wires or hog rings.
- Cut fabric to required width, unroll along length of barrier and drape over barrier. Secure fabric to mesh with twine, staples, or similar, with trailing edge extending into anchor trench.
- Backfill trench over filter fabric to anchor.

Limitations:
- Recommended maximum drainage area of 0.5 acre per 100 feet of fence
- Recommended maximum up-gradient slope length of 150 feet
- Recommended maximum uphill grade of 2:1 (50%)
- Recommended maximum flow rate of 0.5 cfs
- Ponding should not be allowed behind fence

Maintenance:
- Inspect immediately after any rainfall and at least daily during prolonged rainfall.
- Look for runoff bypassing ends of barriers or undercutting barriers.
- Repair or replace damaged areas of the barrier and remove accumulated sediment.
- Reanchor fence as necessary to prevent shortcutting.
- Remove accumulated sediment when it reaches ½ the height of the fence.

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

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☐ Toxic Materials
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☐ Floatable Materials
☐ Other Waste

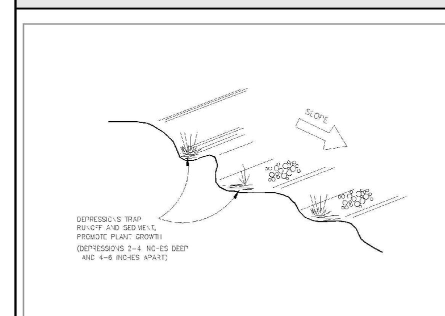
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$$ O & M Costs
$$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Surface Roughening — SR



Description:
Rough preparation of working areas leaving depressions and uneven surface. Depressions should be done parallel to contours

Application:
Surface roughening is appropriate for all construction that will not be receiving impervious cover within 14 days and that will be exposed less than 60 days (seed areas to be open in excess of 60 days).

Installation/Application Criteria:
- Surface should be left in rough condition during initial earthwork activity.
- Surfaces that have become smoothed or compacted due to equipment traffic should be roughened by use of disks, spring harrows, teeth on front end loader, or similar, operating along the contours of the slope. Tracking (by crawler tractor driving up and down slope) may also be used to provide depressions parallel to contours.
- Avoid compaction of soils during roughening as this inhibits plant growth and promotes storm water runoff. Limit tracked machinery to sandy soil.
- Seed or mulch areas to be exposed in excess of 60 days.
- Employ dust controls. (See Dust Control Detail Sheet).

Limitations:
- Will not withstand heavy rainfall.
- Slopes steeper than 2:1 (50%) should be benched (see Benching Detail Sheet).

Maintenance:
- Inspect following any storm event and at a minimum of weekly.
- If erosion in the form of rills (small waterways formed by runoff) is evident, perform machine roughening of area.
- For vegetated slopes reseed areas that are bare or have been reworked.

Objectives:
☐ Housekeeping Practices
☑ Contain Waste
☐ Minimize Disturbed Areas
☑ Stabilize Disturbed Areas
☑ Protect Slopes/Channels
☐ Control site Perimeter
☑ Control Internal Erosion

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Targeted Pollutants
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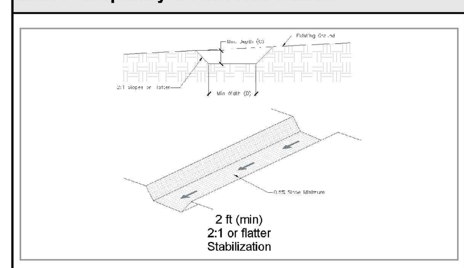
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$$ O & M Costs
$$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapeted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Temporary Drains And Swales — TDS



Description:
Temporary drains and swales are used to divert off-site runoff around the construction site, divert runoff from stabilized areas around disturbed areas, and direct runoff into sediment.

Application:
Temporary drains and swales are appropriate for diverting any upslope runoff around unstabilized or disturbed areas of the construction site.
Prevent slope failures. Prevent damage to adjacent property. Prevents erosion and transport of sediments into water ways. Increases the potential for infiltration.
Diverts sediment-laden runoff into sediment basins or traps.

Installation/Application Criteria:
- Temporary drainage swales will effectively convey runoff and avoid erosion if built properly:
- Size temporary drainage swales using local drainage design criteria. A permanent drainage channel must be designed by a professional engineer (see the local drainage design criteria for proper design).
- At a minimum, the drain/swale should conform to pre-development drainage patterns and capacities.
- Construct the drain/swale with an uninterrupted, positive grade to a stabilized outlet. Provide erosion protection or energy dissipation measures if the flow out of the drain or swale can reach an erosive velocity.

Limitations:
- Temporary drains and swales or any other diversion of runoff should not adversely impact upstream or downstream properties.
- Temporary drains and swales must conform to local floodplain management requirements.

Maintenance:
- Inspect weekly and after each rain.
- Repair any erosion immediately.
- Remove sediment which builds up in the swale and restricts its flow capacity.

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

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Targeted Pollutants
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☐ Floatable Materials
☐ Other Waste

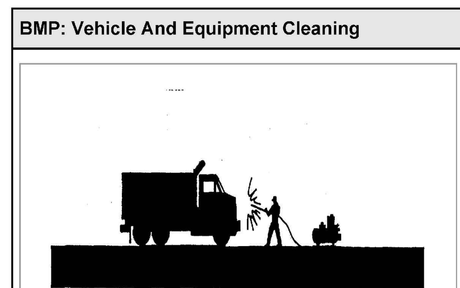
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$$ Capital Costs
$ O & M Costs
$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Vehicle And Equipment Cleaning — VEC



Description:
Prevent or reduce the discharge of pollutants to storm water from vehicle and equipment cleaning by using off-site facilities, washing in designated, contained areas only, eliminating discharges to the storm drain by infiltrating or recycling the wash water, and/or training employees and subcontractors.

Application:
<text here>

Installation/Application Criteria:
- Use off-site commercial washing businesses as much as possible. Washing vehicles and equipment outdoors or in areas where wash water flows onto paved surfaces or into drainage pathways can pollute storm water. If you wash a large number of vehicles or pieces of equipment, consider conducting this work at an off-site commercial business. These businesses are better equipped to handle and dispose of the wash waters properly. Performing this work off-site can also be economical by eliminating the need for a separate washing operation at your site.
- If washing must occur on-site, use designated, bermed wash areas to prevent wash water contact with storm water, creeks, rivers, and other water bodies. The wash area can be sloped for wash water collection and subsequent infiltration into the ground.
- Use as little water as possible to avoid having to install erosion and sediment controls for the wash area. Use phosphate-free biodegradable soaps. Educate employees and subcontractors on pollution prevention measures. Do not permit steam cleaning on-site. Steam cleaning can generate significant pollutant concentrations.

Limitations:
- Even phosphate-free, biodegradable soaps have been shown to be toxic to fish before the soap degrades.
- Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance.

Maintenance:
- Minimal, some berm repair may be necessary.

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

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Targeted Pollutants
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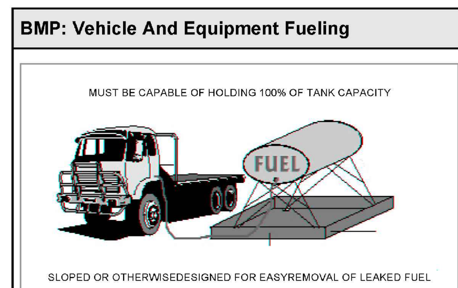
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$ O & M Costs
$$$ Maintenance
$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Vehicle And Equipment Fueling — VEF



Description:
Prevent fuel spills and leaks, and reduce their impacts to storm water by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors.

Installation/Application Criteria:
- Use off-site fueling stations as much as possible. Fueling vehicles and equipment outdoors or in areas where fuel may spill/leak onto paved surfaces or into drainage pathways can pollute storm water. If you fuel a large number of vehicles or pieces of equipment, consider using an off-site fueling station. These businesses are better equipped to handle fuel and spills properly. Performing this work off-site can also be economical by eliminating the need for a separate fueling area at your site.
- If fueling must occur on-site, use designated areas, located away from drainage courses, to prevent the runon of storm water and the runoff of spills. Discourage"topping-off" of fuel tanks.
- Always use secondary containment, such as a drain pan or drop cloth, when fueling to catch spills/leaks. Place a stockpile of spill cleanup materials where it will be readily accessible. Use adsorbent materials on small spills rather than hosing down or burying the spill. Remove the adsorbent materials promptly and dispose of properly.
- Carry out all Federal and State requirements regarding stationary above ground storage tanks.(40 CF Sub. J) Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and perhaps forklifts, most vehicles should be able to travel to a designated area with little lost time. Train employees and subcontractors in proper fueling and cleanup procedures.

Limitations:
- Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance.

Maintenance:
- Keep ample supplies of spill cleanup materials on-site.
- Inspect fueling areas and storage tanks on a regular schedule.

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

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Targeted Pollutants
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◩ Toxic Materials
◩ Oil & Grease
☐ Floatable Materials
☐ Other Waste

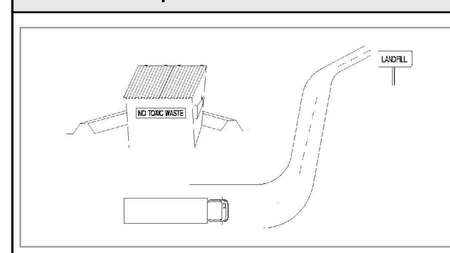
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$ Capital Costs
$ O & M Costs
$$ Maintenance
$$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Waste Disposal — WD



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

Application:
All construction sites.

Installation/Application Criteria:
- Designate one or several waste collection areas with easy access for construction vehicles and personnel. Ensure no waterways or storm drainage inlets are located near the waste collection areas.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around collection area for impoundment in the case of spills and to trap any windblown trash.
- Use water tight containers with covers to remain closed when not in use. Provide separate containers for different waste types where appropriate and label clearly.
- Ensure all on site personnel are aware of and utilize designated waste collection area properly and for intended use only (e.g. all toxic, hazardous, or recyclable materials shall be properly disposed of separately from general construction waste).
- Arrange for periodic pickup, transfer and disposal of collected waste at an authorized disposal location. Include regular Porto-potty service in waste management activities.

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

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

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

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Orem, Utah

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

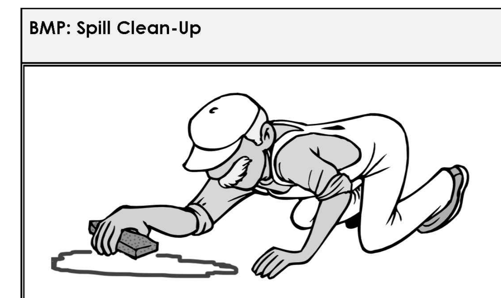
Pollutant Impact
▣ High Impact
◩ Medium Impact
☐ Low or Unknown Impact

Implementation Requirements
$$$ Capital Costs
$$$ O & M Costs
$$ Maintenance
$$$ Training

Relative Costs
$$$ High
$$ Medium
$ Low

Adapted from Salt Lake County BMP Manual
Stormwater Discharge management from Construction Activities 2005

BMP: Spill Clean-Up — SCU



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 #801-536-4100) for any spill of reportable quantity.

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

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Orem, Utah

Adapted from Salt Lake County BMP Fact Sheet

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

■ High Impact
☒ Medium Impact
☐ Low or Unknown Impact

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

■ High ☒ Medium ☐ Low

EROSION CONTROL NOTES:

1. CONTROLLING SEDIMENT TRANSPORT AND PREVENTING AND/OR CORRECTING PROBLEMS ASSOCIATED WITH EROSION AND RUNOFF PROCESSES THAT COULD OCCUR BOTH DURING AND AFTER PROJECT CONSTRUCTION WILL BE CLOSELY MONITORED. PERIODIC MAINTENANCE AND INSPECTION OF SEDIMENT CONTROL DEVICES WILL BE SCHEDULED. PARTICULAR ATTENTION SHALL BE GIVEN TO EXISTING DRAINAGE PATTERNS THAT RUN THROUGH DISTURBED AREAS AND OVER EXTREME SLOPES. THESE PATTERNS WILL BE IDENTIFIED TO ISOLATE PROBLEM AREAS WHERE WATER WILL CONCENTRATE. PROVISIONS SHALL BE MADE TO CHANNEL RUNOFF AWAY FROM NEW OR EXISTING IMPROVEMENTS TO PREVENT UNDERMINING AND GENERAL SITE EROSION. THESE PROVISIONS SHALL BE STABILIZED AND SHALL REMAIN IN PLACE UNTIL THE PERMANENT STORM DRAINAGE FACILITIES ARE INSTALLED AND FUNCTIONAL.

2. EROSION CONTROL - A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED IN ACCORDANCE WITH THE UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM (UPDES) PERMIT FOR CONSTRUCTION, OUTLINING HOW EROSION AND SILTATION WILL BE CONTROLLED. A NOTICE OF INTENT (NOI) HAS BEEN SUBMITTED TO OBTAIN THE UPDES CONSTRUCTION PERMIT. A COPY OF THE PLAN MUST BE ON SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING THE PLAN AND INSTALLING AND MAINTAINING THE EROSION CONTROL FACILITIES WITH EACH PHASE OF WORK. SHOULD SILT LEAVE THE SITE OR EROSION OCCURS, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO TAKE CORRECTIVE ACTION AND REPAIR ANY DAMAGE CAUSED BY THE SILT OR EROSION IMMEDIATELY. ALL COSTS ASSOCIATED WITH THE MODIFICATION AND APPROVAL OF THE PLAN WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3. BEFORE CONSTRUCTION BEGINS, THE LIMITS OF DISTURBANCE (LOD) BOUNDARY SHALL BE STAKED ON SITE AND APPROVED BY THE OWNER'S REPRESENTATIVE AND THE ENGINEER.

4. EXCAVATION AND EMBANKMENT OPERATIONS SHALL PROCEED IN SUCH A MANNER SO THAT FINISHING OF SLOPES, INCLUDING REVEGETATION SHALL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER ROUGH GRADING. ALL SLOPES 2:1 OR FLATTER SHALL BE SCARIFIED WITH HEAVY EQUIPMENT, LEAVING TRACKS PERPENDICULAR TO THE SLOPE. SLOPES OVER 1:1 SHALL UTILIZE EROSION CONTROL/REVEGETATION MATTING.

5. CUT AND FILL SLOPES SHALL BE CONDUCTED PER THE GEOTECHNICAL REPORT. THE TOPS OF ALL CUT SLOPES IN SOIL SHALL BE ROUNDED FOR A HORIZONTAL DISTANCE OF THREE (3) FEET BEYOND THE CATCH POINT. SLOPE ROUNDING SHALL OCCUR AS THE SLOPE IS BEING BROUGHT DOWN. THE OVERALL SHAPE, HEIGHT AND GRADE OF ANY CUT AND/OR FILL SLOPE SHALL BE DEVELOPED IN CONCERT WITH THE EXISTING NATURAL CONTOURS, SCALE AND VEGETATION OF NATURAL TERRAIN.

6. EXISTING VEGETATION SHOULD BE PRESERVED WHEREVER POSSIBLE AND DISTURBED PORTIONS OF THE SITE SHALL BE STABILIZED. STABILIZATION PRACTICES MAY INCLUDE, BUT NOT BE LIMITED TO, TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, GEOTEXTILES, SOD STABILIZATION, VEGETATIVE BUFFER STRIPS, PROTECTION OF TREES, PRESERVATION OF NATURAL VEGETATION AND OTHER APPROPRIATE MEASURES. USE OF IMPERVIOUS SURFACES FOR STABILIZATION SHALL BE AVOIDED. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED.

7. SPECIFICALLY OUTLINED DISTURBED AREAS, BOTH ON AND OFF-SITE SHALL BE REVEGETATED. THESE AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL UNSURFACED AREAS WITHIN THE STAKED LOD, STAGING AND STORAGE AREAS, MATERIAL WASTE AREAS, UNDERGROUND UTILITY CONSTRUCTION AREAS, BENCHED AREAS, INCLUDING RETAINING WALL BENCHES, AND TEMPORARY OR EXISTING ACCESS ROADS USED FOR CONSTRUCTION ACTIVITIES.

8. A SWALE SEDIMENT TRAP FOR ALL DRAINAGE WAYS INTERCEPTED BY PROPOSED ROAD CONSTRUCTION WILL BE FORMED, TRAPS WILL BE PLACED IN SURFACE DRAIN DITCHES JUST BEFORE THE RUNOFF LEAVES THE PROPERTY, ENTERS A WATERCOURSE OR IMMEDIATELY PROCEEDING DITCH INLETS OF STABILIZED OUTLETS. SEDIMENT TRAPS MUST OUTLET ONTO STABILIZED (PREFERABLY UNDISTURBED) GROUND OR LEFT TO PERCOLATE INTO THE GROUND.

9. CONTROLLED OUTLETS SHALL DIRECT COLLECTED RUNOFF THROUGH SILT FENCES OR STRAW BALES

10. TYPICAL FUGITIVE DUST SHALL BE CONTROLLED BY WATERIN AND/OR CHEMICAL STABILIZATION, PROVIDING VEGETATIVE OR SYNTHETIC COVER AND WIND BREAKS CONSISTENT WITH THE UTAH STATE DIVISION OF AIR QUALITY STANDARDS.

11. ANY SEDIMENT TRACKED OFF-SITE SHALL BE REMOVED PRIOR TO THE END OF THE WORK SHIFT OR PRIOR TO SUNSET, WHICHEVER COMES FIRST.

12. CONTRACTOR MAY ADJUST THE LOCATIONS OF THE CONSTRUCTION FENCE, CONSTRUCTION TRAILERS, AND CONSTRUCTION MATERIALS RECEIVING AND STORAGE AREAS, AS NEEDED TO ACCOMPLISH THE CONSTRUCTION. ALL CHANGES SHALL BE NOTATED ON THE EROSION CONTROL PLAN.

13. THE CONTRACTOR SHALL CONDUCT PERIODIC INSPECTIONS OF THE EROSION CONTROL MEASURES, AS REQUIRED AND NOTATED IN THE SWPPP. THE CONTRACTOR WILL MAINTAIN A LOG ON-SITE OF ALL INSPECTIONS WITH THE SWPPP.

14. ANY TREE 12" IN DIAMETER OR LARGER WILL NOT BE REMOVED UNTIL LOCATED BY SURVEY AND THE REMOVAL APPROVED BY THE OWNER OR EQUAL.

15. ALL DITCHES AND SWALES GREATER THAN 5% SHALL BE ARMORED WITH AN APPROPRIATE EROSION CONTROL/REVEGETATION STABILIZATION MAT TO PROMOTE REVEGETATION.

16. PORTABLE TOILETS MAY BE LOCATED UPON ANY INDIVIDUAL HOME LOT.

17. CONTRACTOR MAY ADJUST THE LOCATION OF CONCRETE WASHOUT AREAS AS NEEDED TO ACCOMPLISH THE CONSTRUCTION.

DUDLEY AND ASSOCIATES
ENGINEERS PLANNERS SURVEYORS
353 EAST 1200 SOUTH, OREM, UTAH
801-224-1252

BMP DETAILS

REGISTERED PROFESSIONAL ENGINEER
No. 147089
Roger D Dudley
STATE OF UTAH

Revisions

Date 8-12-2021
Scale NOT TO SCALE
By TD
Tracing No. L -

Sheet No. C- 6.1

NORTH
1" = 20'

All above ground features including utilities (poles, fire hydrants, boxes, etc.) must be out of AASHTO clear zone or a min 18' behind curb.

All work within UDOT ROW to conform to UDOT Standards.

Speed Limit -500 East Street - 45 MPH (Posted)

All striping removal will be to UDOT Standards - No grinding will be permitted.

No parking is permitted on 500 East Street Right of Way.

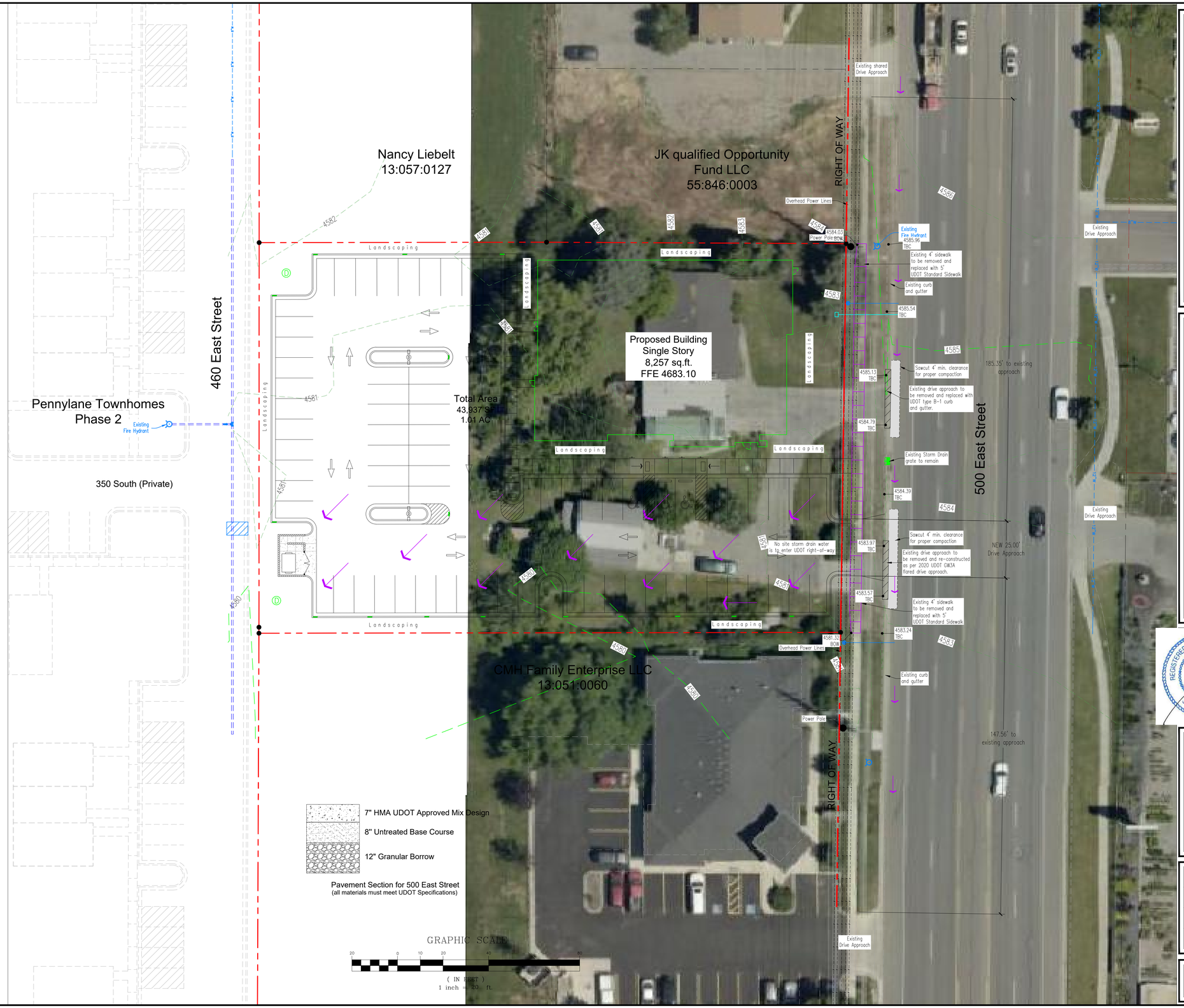
UDOT NOTES

1. UDOT reserves the right, at its option, to install a raised median island or restrict the access to a right-in or rightout at any time.
2. Work on the UDOT right-of-way is seasonally restricted from October 15 to April 15.
3. ROW Work: Work is not allowed on the right-of-way during the AM/PM peak traffic hours (6:00 - 9:00 AM and 3:30 -6:00 PM). Additional work restrictions or modifications may be imposed at the time of the encroachment permit.
4. Replace all pavement markings in kind (tape with tape and paint with paint). Install all paint lines with permanent paint application per UDOT specification 02765. Paint must have at least 6 months life as determined by UDOT's Permits Officer.
5. All new pavement words, arrows and symbols marking within the right-of-way shall be pre-formed thermo plastic. All letters, arrows, and symbols shall conform with the "Standard Alphabet for Highway Signs and Pavement Markings" adopted by the Federal Highway Administration.
6. All signs installed on the UDOT right-of-way must be high intensity grade (Type IX sheeting) with a B3 slip base. Install all signs per UDOT SN series Standard Drawings.
7. Before commencing work on the State highway, the general contractor is required to obtain an encroachment permit from the applicable Region's Permits Office before working within the State right-of-way.
8. No road cuts allowed on this job.
9. For all utility taps (road cuts), use flowable fill per UDOT's current mix design (50-150 psi) UDOT spec. 03575.
10. All utilities within the paved surface must be bored.
11. For excavations outside of the roadway, back fill with UDOT approved granular borrow and road base. Compaction per UDOT spec. 2056 and 2721.
12. Owner, developer, and/or the contractor is required to hire an independent company for all testing within the UDOT right-of-way.
13. Owner, developer, and the contractor are responsible for any damage to the UDOT right-of-way that may be directly or indirectly caused by the development activity.
14. Traffic signal installation or modification requires a separate warranty bond once the work has been completed and accepted. The permittee is responsible for hiring an independent inspection company to perform inspection services for all signal work completed. For a list of the UDOT approved contractors and consultants contact the appropriate Regions Traffic Signals Engineer.
15. Partial concrete panel replacement is not allowed. When panels are removed, the entire panel is required to be replaced per UDOT standards, specifications, and standard drawings.
16. Double saw cut the concrete to prevent the spalling of other concrete panels and to avoid over cuts. Over cuts and spalls will require full panel replacement.
17. All above ground features including utilities (poles, fire hydrants, boxes, etc.) must be relocated out of the AASHTO clear zone or a minimum of 18" behind curb.

CAUTION!!! Notice to contractors

The Contractor is specifically cautioned that the location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and where possible from measurements taken in the field. the information is not to be considered exact or complete. The Contractor must notify the utility location center at least 48 hours prior to any excavation to request the exact location of the utilities in the field. It shall be the responsibility of the Contractor to relocate all existing utilities which conflict with the proposed improvements shown on the plan.

Know what's below. 811
Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111



DUDLEY AND ASSOCIATES
ENGINEERS PLANNERS SURVEYORS
353 EAST 1200 SOUTH, OREM, UTAH
801-224-1252

Goldfish Swim School

Site Plan

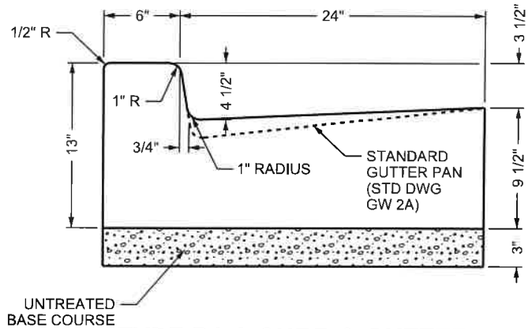
American Fork, Utah



Revisions

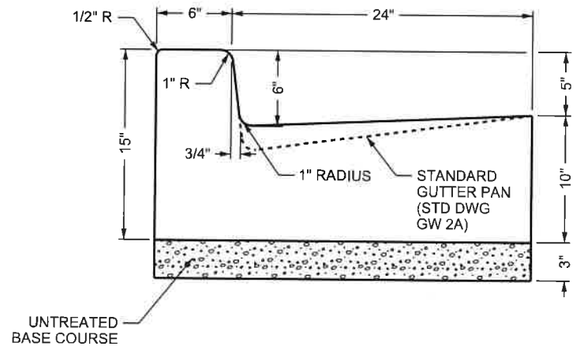
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Tracing No.	L - 14630

Sheet No.
UDOT - 2.0



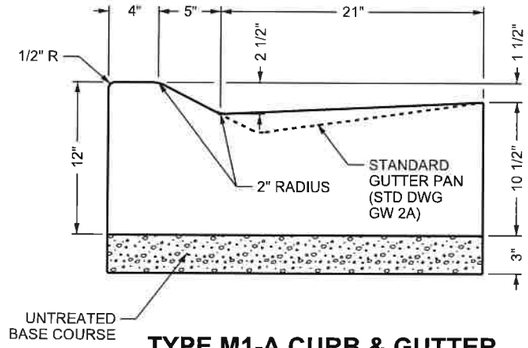
TYPE B1-A CURB & GUTTER

GUTTER PAN SLOPE REDUCED FOR ADA ACCESS
AREA = 2.050 SQ FT



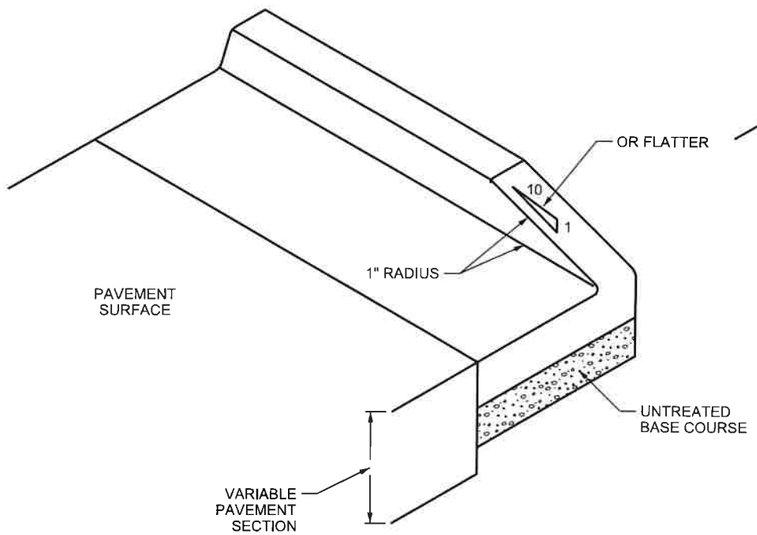
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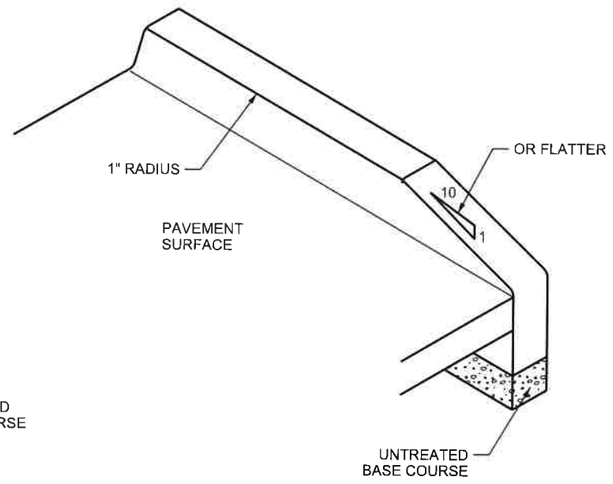


TYPE M1-A CURB & GUTTER

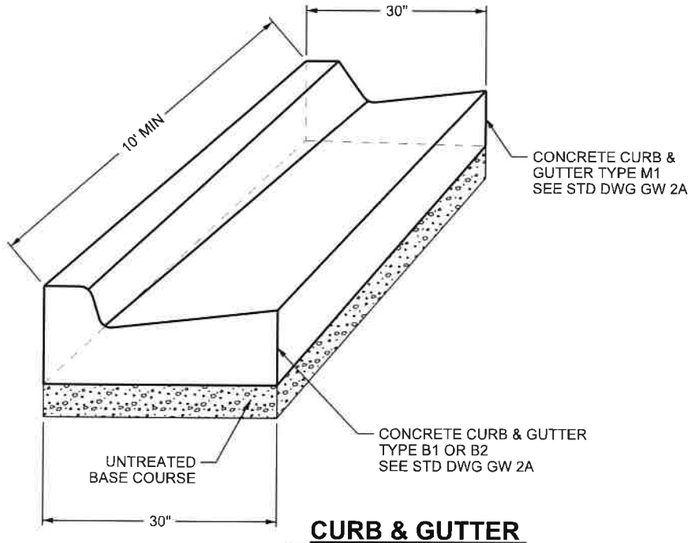
GUTTER PAN SLOPE REDUCED FOR ADA ACCESS
AREA = 2.164 SQ FT



TYPICAL CURB & GUTTER END DETAIL



TYPICAL CURB END DETAIL



CURB & GUTTER TRANSITION DETAIL

NOTE:

1. FLATTEN GUTTERS AS SHOWN AT ADA ACCESS LOCATIONS. FLATTEN GUTTER BETWEEN ACCESSES AS WELL AS AT CURB ACCESSES WHERE MORE THAN ONE ACCESS WILL BE CONSTRUCTED AT A CORNER.

REVISIONS

NO.	DATE	APPR.	REMARKS
1	8/31/17	CGW	LEVELED BOTTOM OF CURB AND GUTTER SECTIONS

UTAH DEPARTMENT OF TRANSPORTATION
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION
SALT LAKE CITY, UTAH

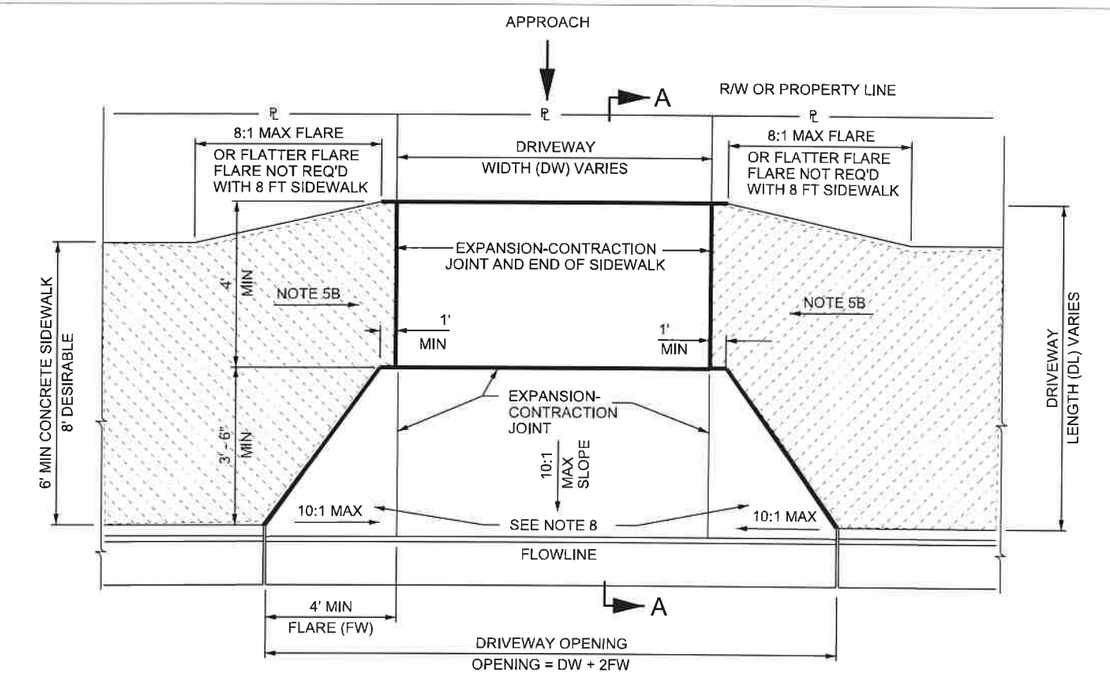
RECOMMENDED FOR APPROVAL — DATE 03/17/2021
CHAIRMAN STANDARDS COMMITTEE — DATE
APPROVED
DEPUTY DIRECTOR — DATE 03/17/2021

CONCRETE CURB AND GUTTER DETAILS

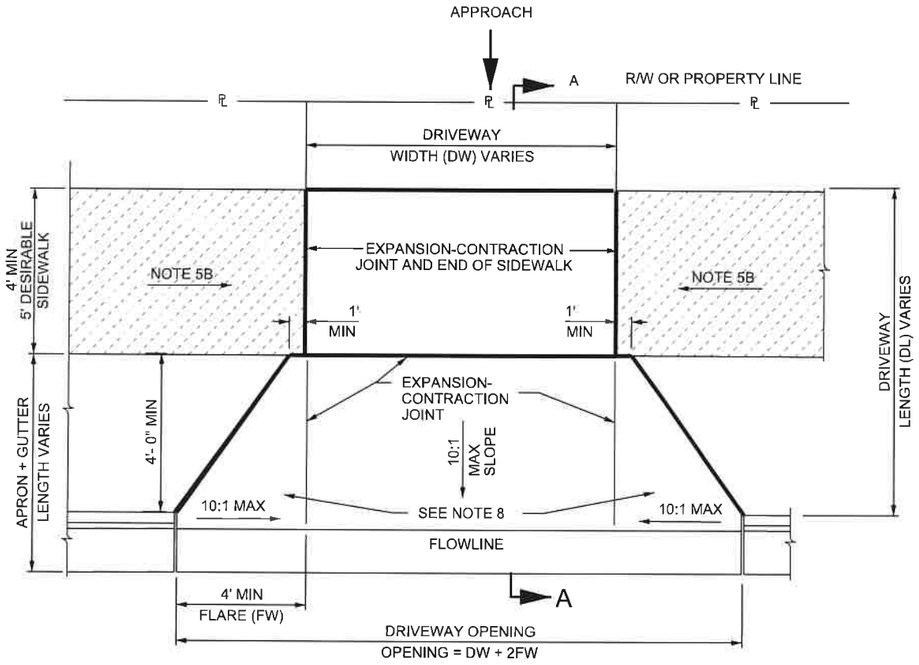
STANDARD DRAWING TITLE

STD. DWG. NO.
GW 2B

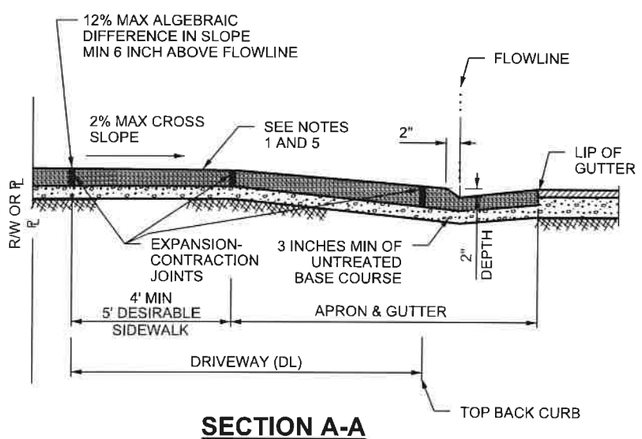
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FLARED DRIVEWAY WITH ADJACENT SIDEWALK

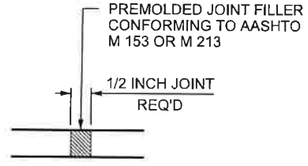


FLARED DRIVEWAY WITH PARKSTRIP



SECTION A-A

DRIVEWAY FLARE AREA CHART	
FLARED DRIVEWAY	
DISTANCE FROM BACK OF CURB TO SIDEWALK	FLARE AREA
3 FT	18 ft^2
4 FT	24 ft^2
6 FT	36 ft^2
8 FT	48 ft^2
10 FT	60 ft^2
ADD (DL)(DW) FOR	
TOTAL QUANTITY	
QUANTITY CALCULATED USING A 6 INCH CURB	



EXPANSION-CONTRACTION JOINT DETAIL

NOTES:

1. SIDEWALK CROSS SLOPE DIMENSIONS SHOWN ARE NOT SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES. CONSTRUCT SIDEWALKS AND RAMPS SUCH THAT THE MAXIMUM OR MINIMUM VALUES ARE NOT EXCEEDED. WORK THAT EXCEEDS THOSE VALUES WILL NOT BE ACCEPTED.
2. MAXIMUM DISTANCE BETWEEN CONTROL JOINTS 10 FT LATERALLY AND LONGITUDINALLY SPACED EQUALLY.
3. PROVIDE EXPANSION-CONTRACTION JOINTS IN CONCRETE SIDEWALK AT 30 FT INTERVALS AND WHERE CONCRETE SIDEWALK BUTTS AGAINST DRIVEWAY.
4. SIDEWALK INSIDE THE DRIVEWAY LIMITS IS PAID AS PART OF DRIVEWAY, NOT AS PART OF SIDEWALK.
5. FLARED CONCRETE DRIVEWAY
   A. RESIDENTIAL = 6 INCH THICK, COMMERCIAL = 7 INCH THICK. USE THESE THICKNESSES FOR APRON, SIDEWALK WITHIN DRIVEWAY AREA, APPROACH AND FLARE.
   B. DEPRESS THE LONGITUDINAL SLOPE OF THE SIDEWALK AT A MAXIMUM RATE OF 5 PERCENT TO MEET THE APRON - APPROACH ELEVATION IF THE GRADES SHOWN ON THE SLOPE DETAIL CANNOT BE MET. THE TOP BACK OF SIDEWALK IS TO BE A MINIMUM 6 INCHES ABOVE THE FLOWLINE OF CURB AND GUTTER AT ALL TIMES.
6. USE CLASS AA(AE) CONCRETE FOR SIDEWALK AND DRIVEWAYS.
7. USE UNTREATED BASE COURSE UNDER ALL SIDEWALKS AND DRIVEWAYS.
8. QUANTITIES FOR DRIVEWAYS INCLUDE FLARES TO TOP BACK OF CURB. CURB AND GUTTER PAID SEPARATELY THROUGH DRIVEWAY LOCATIONS.
9. REMOVE EXISTING SIDEWALK AND REPLACE BACK TO NEAREST EXPANSION-CONTRACTION JOINT.
10. APPROACH IS FROM EXISTING DRIVEWAY TIE-IN TO TOP-BACK-CURB AND IS PART OF DRIVEWAY QUANTITIES.

DESIGN-ONLY NOTES:

A. DRIVEWAY DIMENSIONS (MAX.& MIN.) ARE LOCATED IN UDOT "ADMINISTRATIVE RULE R930-6 ACCOMMODATION OF UTILITIES AND THE CONTROL AND PROTECTION OF STATE HIGHWAY RIGHTS OF WAY."

REVISIONS

NO.	DATE	APPR.	REMARKS
1	8/31/17	CGW	INCREASED MINIMUM APRON DEPTH TO 3.5 FT

UTAH DEPARTMENT OF TRANSPORTATION
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION
SALT LAKE CITY, UTAH

03/17/2021

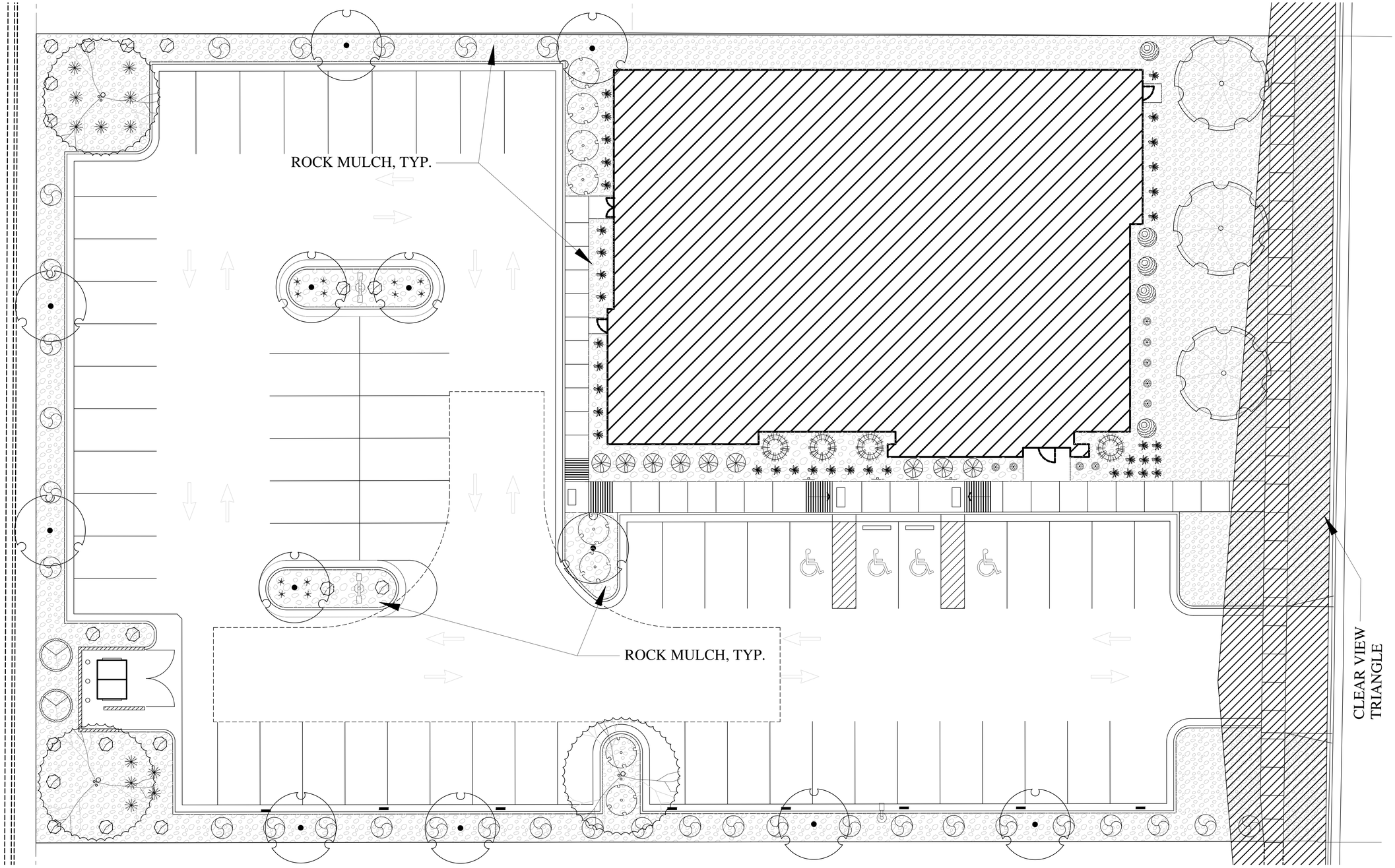
RECOMMENDED FOR APPROVAL — DATE 03/17/2021
CHAIRMAN STANDARDS COMMITTEE
APPROVED: [illegible] — DATE
DEPUTY DIRECTOR

CONCRETE DRIVEWAYS AND SIDEWALKS

STANDARD DRAWING TITLE

STD. DWG. NO.
GW 3A

DGN File: D:\StandardsandSpecs\Section\2022 Section\Electronic Books\Master Drawings\Drawing Batches for PDF\Batch 5 IFG, GF, DK, PA\GW03A.dgn
15-MAR-2021



AREA CALCULATIONS

TOTAL SITE AREA *NOT INCLUDING PARK STRIP AREA (1,505 S.F.)	44,557 S.F.
TOTAL LANDSCAPE AREA *NOT INCLUDING PARK STRIP AREA (1,232 S.F.)	10,347 S.F.
TREES (1 PER 2,500 S.F. OF IMPROVED AREA REQUIRED: PROVIDED	 18 18
SHRUBS (1 PER 300 S.F. OF IMPROVED AREA REQUIRED: PROVIDED:	 149 149

DECIDUOUS TREE LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE
	GLEDITSIA TRIACANTHOS INERMIS 'IMPCOLE' IMPERIAL HONEY LOCUST	3	2" CAL
	PRUNUS SERRULATA 'KWANZAN' KWANZAN JAPANESE FLOWERING CHERRY	3	2" CAL.
	TILIA CORDATA 'CORZAM' CORINTHIAN LITTLELEAF LINDEN	12	2" CAL.

DECIDUOUS SHRUB LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE
	CORNUS ALBA 'MINBAT' BATON ROUGE DOGWOOD	32	5 GAL.
	CORNUS SERICEA 'KELSEYI' KELSEY'S DWARF RED TWIG DOGWOOD	19	5 GAL.
	HISBISCUS SYRIACUS 'ANTONG TWO' LIL KIM DWARF ROSE OF SHARON	5	5 GAL.
	PHYSOCARPUS OPULIFOLIUS 'SMPOTW' TINY WINE NINEBARK	9	5 GAL.
	RHUS AROMATICA 'GRO-LOW' GRO-LOW FRAGRANT SUMAC	8	5 GAL.
	VIBURNUM X BURKWOODII BURKWOOD VIBURNUM	2	5 GAL.

EVERGREEN SHRUB LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE
	JUNIPERUS CHINENSIS 'BLUE POINT'" BLUE POINT JUNIPER	4	5-6' TALL

PERENNIALS / GRASSES LEGEND

SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE
	CALAMAGROSTIS X ACUTIFLORA 'AVALANCHE' FEATHER REED GRASS	9	1 GAL.
	CAREX ELATA 'BOWLES GOLDEN' BOWLES GOLDEN SEDGE	12	1 GAL.
	CAREX MUSKINGUMENSIS 'ICE FOUNTAINS' ICE FOUNTAINS PALM SEDGE	12	1 GAL.
	HEMEROCALLIS X `ALWAYS AFTERNOON' DAYLILY	37	1 GAL.

10' 0 10' 20' 30'

SCALE: 1"=10'-0" ON 24X36 SHEET

In Site DESIGN GROUP
Landscape Architecture Land Planning
57 North 450 West American Fork, Utah 84003
801.756.5043 www.in-sitedesigngroup.com

2120 E. 11 Mile Rd. | Royal Oak, MI 48067
P: 248.414.9270 **F:** 248.414.9275
www.kriegerklatt.com

Client:
Goldfish Swim Schools

Project:
GSS - American Fork, UT
348 South 500 East
American Fork, Utah

Issued	Description	By
04.19.2021	Site Plan Review	TS
06.07.2021	TRC Review	DW
08.24.2021	TRC Revisions 01	DW
09.29.2021	C&S/Bids	DW
10.29.2021	C&S/Bids	CW
12.30.2021	Revisions	CW

Brand Standard:
All Brand Standards must be followed - No deviation permitted without prior written Goldfish Franchise approval.

Seal:
STATE OF UTAH
DARREN G. WILSON
NO. 356187
12-30-2021
LICENSED LANDSCAPE ARCHITECT

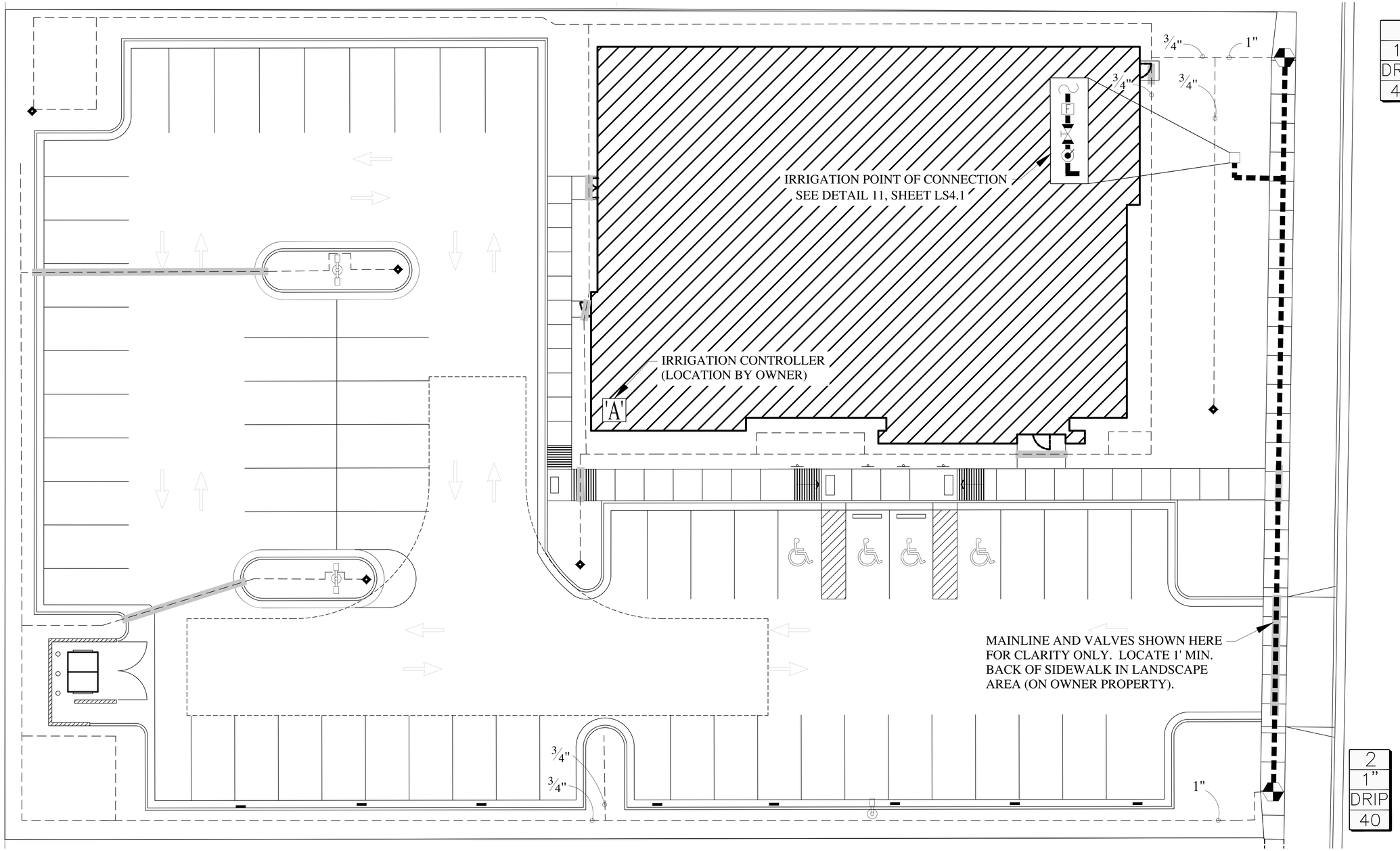
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Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:
PLANTING PLAN

Project Number:
21-017

Sheet Number:
LS1.1



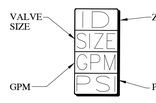
1
1"
DRIP
40

2
1"
DRIP
40

IRRIGATION LEGEND

SYMBOL	MANUFACTURER-MODEL NUMBER	PAT.	RD.	PSI	GPM Q	T	H	TT	TQ	F	DRIP GPH	DETAILS	REMARKS
NOT SHOWN	GPH INC. GPSCV2M DRIP EMITTER	F	--	30	--	--	--	--	--	--	2.0	16-19	SEE IRRIGATION DETAILS
NOT SHOWN	RAINBIRD PC-05 EMITTER WITH DIFFUSER CAP	F	--	30	--	--	--	--	--	--	5.0	16-19	SEE IRRIGATION DETAILS
NOT SHOWN	DRIPLINE: NETAFIM TLCV26-18	F	--	30	--	--	--	--	--	--	26/18"	16-19	SEE IRRIGATION DETAILS
NOT USED	RAIN BIRD 1804-PRS POP-UP SPRAY 10 SERIES	Q,T,H	10'	30	.39	.53	.79	--	--	--	--	6	ADJUST ARC AS NEEDED
NOT USED	RAIN BIRD 1804-PRS POP-UP SPRAY SERIES VAN	VAN	10'	30	--	--	--	--	--	--	--	6	ADJUST ARC AS NEEDED
NOT USED	RAIN BIRD R-VAN24 (RD-04-SAM-P45 TURF ROTARY)	VAN	24'	45	--	--	--	--	--	--	--	6	ADJUST ARC AS NEEDED
'A'	RAINBIRD CONTROLLER, MODEL #ESPLXBASIC. LC. TO COORDINATE WITH TRADES TO RUN CONDUIT AND SLEEVING FOR WIRING TO VALVES. SIZE CONTROLLER AS NECESSARY. PLACE CONTROLLER IN WEATHER RESISTANT CABINET											1	COORDINATE EXACT LOCATION WITH OWNER.
F	1" RAINBIRD SCREEN FILTER											12-13	SEE IRRIGATION DETAILS
	1" SCHEDULE 80 ISOLATION VALVE											12-13	JUMBO VALVE BOX
	1" POINT OF CONNECTION TO P.I. WATER MAIN PER CIVIL DRAWINGS.											12-13	JUMBO VALVE BOX
NOT USED	RAIN BIRD PESB-PRS-D AUTOMATIC CONTROL VALVE (SIZE AS NOTED ON PLAN). INSTALL PRS-D OPTION PER DETAILS.											5-7	SEE IRRIGATION DETAILS
	DRIP CONTROL ZONE KIT: RAINBIRD XCZ-100-PRB COM											14	JUMBO VALVE BOX
	1" SCH. 40 PVC MAINLINE											4, 8	SEE IRRIGATION DETAILS
NOT USED	LATERAL LINE: PVC SCH. 40 (SIZE PER PLAN)											4, 8	SEE IRRIGATION DETAILS
	DRIP LATERAL: PVC SCH 40, OR STICKY-STRIP PVC HOSE BY GPH. L.C. SHALL SIZE PIPE PER DETAILS AND SPECS.											16-19	SEE IRRIGATION DETAILS
	1" RAINBIRD QUICK COUPLER VALVE, MODEL #44NP FOR SYSTEM BLOWOUT. ALL GALVANIZED FITTINGS & PIPE.											3	SEE IRRIGATION DETAILS
NOT SHOWN	14 GAUGE SINGLE STRAND SOLID COPPER CONTROL WIRE											4	SEE IRRIGATION DETAILS
	SLEEVE (SIZE TO BE A MIN. OF TWICE THE DIAMETER OF THE MAIN, LATERAL)											8	COORDINATE WITH ALL TRADES
NOT SHOWN	WIRE CHASE, SIZE TO BE 2X THE DIAMETER OF THE WIRE BUNDLE WITHIN, 1" DIA. WC IS THE MINIMUM SIZE ALLOWED.											4	COORDINATE WITH ALL TRADES
	FLUSH VALVE: 1/2" PVC BALL VALVE. INSTALL AT END OF ALL DRIP LINES IN 10" ROUND VALVE BOX											15	REFERENCE DETAILS

VALVE ID TAG



DRIP EMITTER LEGEND

PLANT TYPE	EMITTER QTY	EMITTER TYPE
PERENNIALS/GRASSES	1	GPSTCV2M (2GPH)
ALL SHRUBS	2	GPSTCV2M (2GPH)
TREES IN PLANTERS	2	PC-05 (5GPH)

NOTE:
1. EMITTERS LISTED ARE AVAILABLE FROM GPH AND RAINBIRD.
2. EMITTERS ARE NOT NECESSARY FOR TREES IN LAWN AREAS.
3. INSTALL NETAFIM TLCV IN ADDITION TO PC-05 EMITTERS PER IRRIGATION DETAILS.
4. INSTALL PC-DIFFUSER CAP ON ALL PC-05 EMITTERS.

IRRIGATION NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE LANDSCAPE CONTRACTOR (L.C.) SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
2. L.C. SHALL HAVE ALL UTILITIES BLUE STAKED BEFORE DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF CONTRACTOR WITH NO EXTRA COST TO THE OWNER.
3. PROVIDE AN AS-BUILT, REPRODUCIBLE DRAWING TO OWNER SHOWING ALL DRAINS, VALVES, AND PIPES. PROVIDE INSTRUCTIONS TO MAINTENANCE PERSONNEL FOR WINTERIZATION. SPRINKLER SYSTEM TO BE BLOWN OUT WITH AN AIR COMPRESSOR EACH FALL.
4. L.C. SHALL ONLY USE COMMERCIAL GRADE PRODUCTS AND IS RESPONSIBLE FOR ENSURING ACCURATE COUNTS/QUANTITIES OF ALL IRRIGATION MATERIALS FOR BIDDING AND INSTALLATION.
5. L.C. SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN SCH. 40 ELECTRICAL CONDUIT. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES AS NECESSARY.
6. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
7. MAIN LINE SHALL BE 1" (UNLESS OTHERWISE DIRECTED). LATERAL LINES SHALL BE NO SMALLER THAN 3/4" UNLESS NOTED ON PLAN. PIPES SHALL CARRY NO MORE THAN THE FOLLOWING: 1/2" MAX. 4 GPM, 3/4" PIPE MAX. 8GPM, 1" PIPE MAX. 13GPM. ADJUST LOCATION OF MAINLINE AND LATERAL LINES AS NECESSARY IN ORDER TO AVOID PLACING BOULDERS, TREES AND SHRUBS DIRECTLY OVER MAINLINE AND LATERAL LINES.
8. MAIN LINES SHALL BE 18" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 3/4" DIAMETER SHALL BE ALLOWED IN TRENCHES.
9. PLACE PIPES, VALVE BOXES AND ALL OTHER SPRINKLER CONSTRUCTION IN LANDSCAPE AREAS. ALL PIPES SHALL BE ON PROPERTY OF OWNER. MODIFY LOCATION OF VALVE BOXES AS NECESSARY IN ORDER TO AVOID TREES AND SHRUBS PER PLANTING PLAN. DO NOT LOCATE VALVE BOXES IN LAWN AREAS IF POSSIBLE.
10. LANDSCAPE ARCHITECT OR OWNER SHALL VISUALLY INSPECT ALL TRENCHES PRIOR TO BACKFILLING. L.C. SHALL GIVE LANDSCAPE ARCHITECT MIN. 72 HR. NOTICE BEFORE INSPECTION IS TO BE MADE.
11. L.C. SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
12. ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. CONTRACTOR IS RESPONSIBLE TO MAKE NECESSARY ADJUSTMENTS TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS. L.C. SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS.
13. VALVE BOXES SHALL BE INSTALLED SQUARED TO AND 6" MIN. AWAY FROM WALKS AND WALLS.
14. DRIP LINES SHALL BE FLEXIBLE AR PVC TUBING BY GPH. FOR DRIP AREAS REQUIRING 0-4 GPM USE 1/2" TUBING. FOR DRIP AREAS REQUIRING 4-8GPM USE 3/4" TUBING AND FOR DRIP AREAS REQUIRING 8-13 GPM USE 1" TUBING. CONTRACTOR TO VERIFY PLANT QUANTITIES ON EACH DRIP LINE AND SIZE PIPE ACCORDINGLY. L.C. TO INSTALL RAIN BIRD XFD-09-12 ON-SURFACE DRIP LINE FOR TREES PER THE DETAILS. MODIFY DRIP ZONES AS NECESSARY TO PROVIDE ADEQUATE COVERAGE TO ALL LANDSCAPED AREAS. PIPE SIZING SHOWN IS FOR HEADERS. THE CONTRACTOR MAY DOWNSIZE TO $\frac{3}{4}$" FOR HEADERS THAT DONT EXCEED 4 GPM.
15. POWER TO CONTROLLER TO BE PROVIDED BY ELECTRICAL CONTRACTOR. OWNER TO SPECIFY EXACT LOCATION OF CONTROLLER. IF MOUNTED OUTSIDE, CONTROLLER TO BE MOUNTED IN WEATHERPROOF LOCKING WALL MOUNTED CABINET PER MANUFACTURERS INSTRUCTIONS. L.C. SHALL ENSURE THE CONTROLLER IS GROUNDED PER LOCAL CODE AND PER MANUFACTURER SPEC.
16. IF THE STATIC PRESSURE AT THE POINT OF CONNECTION EXCEEDS 110 PSI, INSTALL A BRASS PRESSURE REDUCER IN-LINE WITH THE FILTER PER MANUFACTURER SPECS. INSTALL THE FILTER AND PRESSURE REDUCER IN A VALVE BOX (SIZE AS REQUIRED). ADJUST PRESSURE AS REQUIRED FOR NORMAL OPERATION OF THE IRRIGATION SYSTEM.

10' 0 10' 20' 30'

SCALE: 1"=10'-0" ON 24X36 SHEET

2120 E. 11 Mile Rd. | Royal Oak, MI 48067
P: 248.414.9270 **F:** 248.414.9275
www.kriegerklatt.com

Client:
Goldfish Swim Schools

Project:
GSS - American Fork, UT
348 South 500 East
American Fork, Utah

Issued	Description	By
04.19.2021	Site Plan Review	TS
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08.24.2021	TRC Revisions 01	DW
09.29.2021	C&S/Bids	DW
10.29.2021	C&S/Bids	CW
12.30.2021	Revisions	CW

Brand Standard:
All Brand Standards must be followed - No deviation permitted without prior written Goldfish Franchise approval.

Seal:
STATE OF UTAH
DARREN G. WILSON
NO. 356187
12-30-2021
LICENSED LANDSCAPE ARCHITECT

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

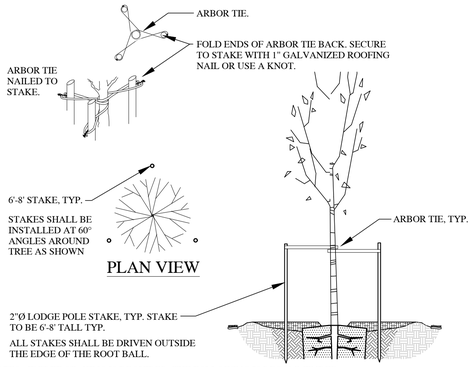
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IRRIGATION PLAN

Project Number:
21-017

Sheet Number:
LS2.1

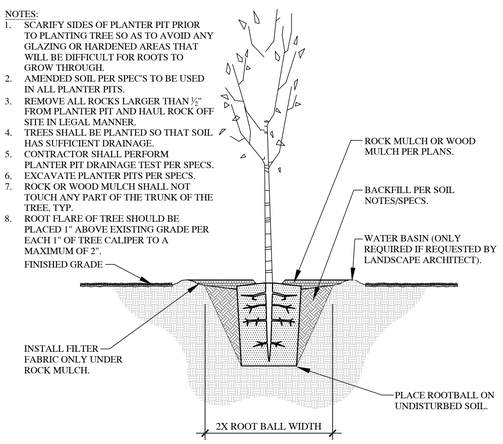
In Site DESIGN GROUP
Landscape Architecture Land Planning
92 North 400 West American Fork, Utah 84003
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NOTES: IF TREE STAKING IS REQUIRED, THE FOLLOWING IS RECOMMENDED:
1. ALLOW FOR SOME TRUNK MOVEMENT. ATTACH ARBOR TIE TO TREE AND STAKE.
2. REMOVE ALL WRAPPING MATERIAL FROM ROOTBALL PRIOR TO PLANTING.
3. INSTALL THREE STAKES PER TREE, SPACED EVENLY AROUND THE TRUNK
4. REMOVE ALL STAKING AS SOON AS THE TREE IS STABLE.
5. CONTRACTOR SHALL PROVIDE TREE STAKING AS PART OF THE BASE BID.
6. CONTRACTOR TO REMOVE NURSERY TREE STAKE FROM ROOTBALL AT TIME OF PLANTING (TYP.).

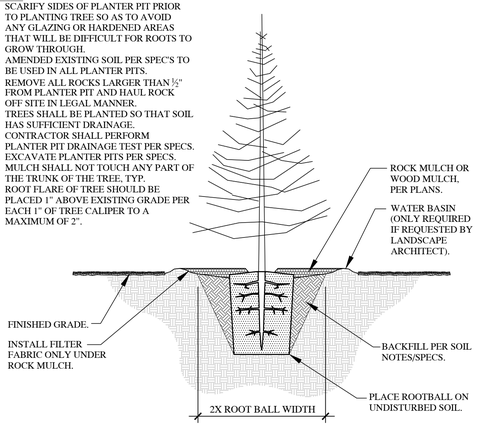
1 TREE STAKING
SCALE: NTS

NOTES:
1. SCARIFY SIDES OF PLANTER PIT PRIOR TO PLANTING TREE SO AS TO AVOID ANY GLAZING OR HARDENED AREAS THAT WILL BE DIFFICULT FOR ROOTS TO GROW THROUGH.
2. AMENDED SOIL PER SPEC'S TO BE USED IN ALL PLANTER PITS.
3. REMOVE ALL ROCKS LARGER THAN ½" FROM PLANTER PIT AND HAUL ROCK OFF SITE IN LEGAL MANNER.
4. TREES SHALL BE PLANTED SO THAT SOIL HAS SUFFICIENT DRAINAGE.
5. CONTRACTOR SHALL PERFORM PLANTER PIT DRAINAGE TEST PER SPECS.
6. EXCAVATE PLANTER PITS PER SPECS.
7. ROCK OR WOOD MULCH SHALL NOT TOUCH ANY PART OF THE TRUNK OF THE TREE, TYP.
8. ROOT FLARE OF TREE SHOULD BE PLACED 1" ABOVE EXISTING GRADE PER EACH 1" OF TREE CALIPER TO A MAXIMUM OF 2".

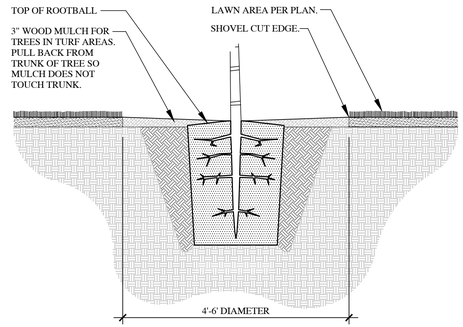


2 DECIDUOUS TREE PLANTING
SCALE: NTS

NOTES:
1. SCARIFY SIDES OF PLANTER PIT PRIOR TO PLANTING TREE SO AS TO AVOID ANY GLAZING OR HARDENED AREAS THAT WILL BE DIFFICULT FOR ROOTS TO GROW THROUGH.
2. AMENDED EXISTING SOIL PER SPEC'S TO BE USED IN ALL PLANTER PITS.
3. REMOVE ALL ROCKS LARGER THAN ½" FROM PLANTER PIT AND HAUL ROCK OFF SITE IN LEGAL MANNER.
4. TREES SHALL BE PLANTED SO THAT SOIL HAS SUFFICIENT DRAINAGE.
5. CONTRACTOR SHALL PERFORM PLANTER PIT DRAINAGE TEST PER SPECS.
6. EXCAVATE PLANTER PITS PER SPECS.
7. MULCH SHALL NOT TOUCH ANY PART OF THE TRUNK OF THE TREE, TYP.
8. ROOT FLARE OF TREE SHOULD BE PLACED 1" ABOVE EXISTING GRADE PER EACH 1" OF TREE CALIPER TO A MAXIMUM OF 2".

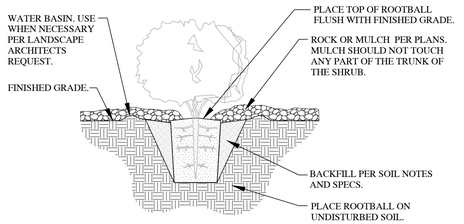


3 EVERGREEN PLANTING
SCALE: NTS



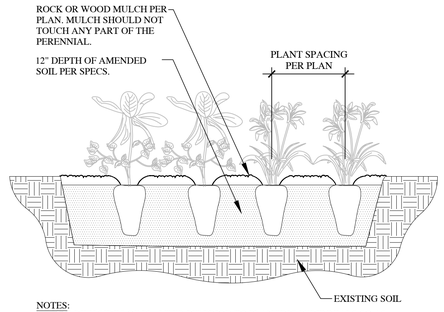
NOTES:
1. DO NOT INSTALL WEED FABRIC UNDER WOOD MULCH.
2. TREE WELL FOR SMALL FLOWERING TREES SHALL BE 4'-0".
3. TREE WELL FOR LARGE SHADE TREES OR EVERGREENS SHALL BE 6'-0" UNLESS OTHERWISE NOTED.
4. AS TREES MATURE TREE WELL WILL NEED TO EXPAND.

4 TREE WELL IN TURF AREA
SCALE: NTS



NOTES:
1. SCARIFY SIDES OF PLANTER PIT PRIOR TO PLANTING SHRUB/GRASS SO AS TO AVOID ANY GLAZING OR HARDENED AREAS THAT WILL BE DIFFICULT FOR ROOTS TO GROW THROUGH.
2. IMPORTED & AMENDED TOPSOIL PER SPEC'S TO BE USED IN ALL PLANTER PITS.
3. REMOVE ALL COMPACTED, CLAY OR ROCKY SOILS FROM PIT AND HAUL OFF SITE IN A LEGAL MANNER.
4. CONTRACTOR SHALL PERFORM PLANTER PIT DRAINAGE TEST PER SPECS.
5. EXCAVATE PLANTER PITS PER SPECS.

5 SHRUB & ORNAMENTAL GRASS PLANTING
SCALE: NTS



NOTES:
1. SCARIFY SIDES OF PLANTER PIT PRIOR TO PLANTING PERENNIALS SO AS TO AVOID ANY GLAZING OR HARDENED AREAS THAT WILL BE DIFFICULT FOR ROOTS TO GROW THROUGH.
2. REMOVE ALL COMPACTED, CLAY OR ROCKY SOILS FROM PIT AND HAUL OFF SITE IN LEGAL MANNER.
3. CONTRACTOR SHALL PERFORM PLANTER PIT DRAINAGE TEST PER SPECS.
4. EXCAVATE PLANTER PITS PER SPECS.

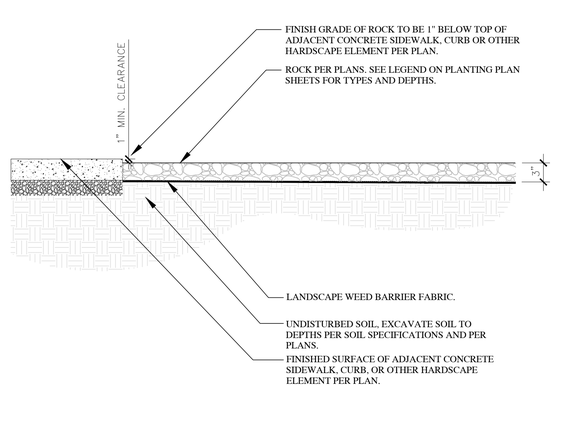
6 PERENNIAL PLANTING
SCALE: NTS

NOT USED

7 SOD LAYING AND EDGE
SCALE: NTS

1. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF ALL MATERIALS FOR BIDDING AND INSTALLATION PURPOSES. IF DISCREPANCIES EXIST, THE PLAN SHALL DICTATE.
2. PLANT MATERIAL TO BE INSTALLED PER PLANT LEGEND. ANY SUBSTITUTIONS TO BE APPROVED BY OWNER AND/OR LANDSCAPE ARCHITECT.
3. NEW AUTOMATIC UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED PRIOR TO LANDSCAPE INSTALLATION TO ENSURE PROPER WATERING OF ALL LANDSCAPE AREAS. REFER TO IRRIGATION PLANS FOR SPECIFICS.
4. SANDY LOAM TOPSOIL TO BE INSTALLED AT THE FOLLOWING DEPTHS: 12" IMPORTED SANDY LOAM TOPSOIL (INCLUDING MIN. 15% HIGH GRADE DECOMPOSED ORGANIC MATERIAL MIXED INTO TOPSOIL PRIOR TO SPREADING) IN ALL NEW PLANTER AREAS. PROVIDE OWNER A BID ALTERNATE TO ONLY INSTALL 6" OF AMENDED TOPSOIL IN PLANTER AREAS VS. 12".
5. PLANTER BEDS TO BE EXCAVATED AS NECESSARY IN ORDER TO ALLOW FOR TOPSOIL, AMENDMENTS AND MULCH. THE FINISHED GRADE OF PLANTER AREAS SHALL BE APPROX. 1" BELOW TOP OF CURB, SIDEWALK, OR OTHER PAVED AREA.
6. DEWITT 5 OZ. WEED BARRIER FABRIC TO BE INSTALLED IN ALL ROCK MULCH AREAS (IF ANY). DO NOT INSTALL WEED BARRIER FABRIC UNDER ANNUALS, GROUNDCOVERS AND AREAS TO RECEIVE WOOD MULCH.
7. INSTALL PRE-EMERGENT HERBICIDE TO THE TOP OF THE FABRIC AFTER INSTALLING PLANTS AND PRIOR TO INSTALLING MULCH. AFTER INSTALLATION OF THE MULCH THE CONTRACTOR SHALL EVENLY BROADCAST A SECOND APPLICATION OF SLOW-RELEASE PRE-EMERGENT HERBICIDE. APPLY PRE-EMERGENT HERBICIDE PER MANUFACTURERS RECOMMENDATIONS. ALL PLANTING AREAS SHALL RECEIVE 2 APPLICATIONS OF PRE-EMERGENT HERBICIDE REGARDLESS OF WHETHER WEED FABRIC IS INSTALLED OR NOT.
8. DECORATIVE ROCK MULCH TO BE 1"-2" SIZE SOUTHTOWN CRUSHED STONE FROM UTAH LANDSCAPE ROCK AND INSTALLED AT A 3" DEPTH IN ALL TREE AND SHRUB PLANTER AREAS. PULL MULCH MIN. 3" AWAY FROM BASE OF ALL PERENNIALS AND SHRUBS AND MIN. 6" AWAY FROM ALL TREES. MULCH TYPE AND COLOR SHALL MATCH THE ADJACENT DEVELOPMENT. OWNER TO APPROVE THE MULCH TYPE AND COLOR PRIOR TO INSTALLATION.
9. IF HIGH WINDS ARE FREQUENT ON SITE, ALL TREES TO BE STAKED AT TIME OF PLANTING. SEE DETAILS FOR SPECIFICS. REMOVE STAKING WITHIN FIRST YEAR OR WHEN TREE IS ESTABLISHED.
10. CONTRACTOR SHALL INSPECT ALL DRAWINGS AND SPECIFICATIONS. ANY DISCREPANCIES FOUND IN THE DRAWINGS, DETAILS OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND IN-SITE DESIGN GROUP PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN WRITTEN FIELD DIRECTIVES FROM IN-SITE DESIGN GROUP AND/OR THE OWNER STATING PROPER COURSE OF ACTION IF DISCREPANCIES OR ERRORS ARE DISCOVERED PRIOR TO AND DURING CONSTRUCTION.

9 LANDSCAPE NOTES

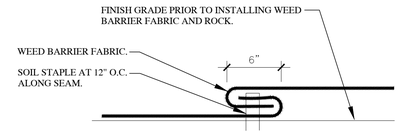


10 ROCK AND WEED BARRIER FABRIC
SCALE: NTS

00 6" MOWCURB SECTION
SCALE: NTS

NOTES:
1. ROCK SHALL BE SCREENED & DOUBLE WASHED AND BE FREE OF DEBRIS PRIOR TO INSTALLATION. IF ROCK SUPPLIER DOES NOT HAVE A WASH PLANT, THE LANDSCAPE CONTRACTOR SHALL STILL BE RESPONSIBLE FOR DOUBLE WASHING ALL ROCK AND BOULDERS PRIOR TO INSTALLATION.
2. INSTALL PRE-EMERGENT HERBICIDE TO THE TOP OF THE FABRIC AFTER INSTALLING PLANTS AND PRIOR TO INSTALLING MULCH. AFTER INSTALLATION OF THE MULCH THE CONTRACTOR SHALL EVENLY BROADCAST A SECOND APPLICATION OF SLOW-RELEASE PRE-EMERGENT HERBICIDE. APPLY PRE-EMERGENT HERBICIDE PER MANUFACTURERS RECOMMENDATIONS.
3. KEEP TOP OF ROCK 1"-1½" BELOW ADJACENT WALKS AND CURBS. DO NOT ALLOW ROCK TO TOUCH THE TRUNK OF ANY PLANT. INSTALL ROCK AFTER INSTALLATION OF WEED BARRIER FABRIC AND PLANT MATERIAL.
4. CONTRACTOR TO ENSURE THAT TOP OF WEED BARRIER FABRIC IS FREE OF SOILS AND DEBRIS PRIOR TO PLACING ROCK.
5. SEE LANDSCAPE PLANS FOR ROCK TYPE AND DEPTH.

WEED FABRIC NOTE:
INSTALL 6" SOIL STAPLE IN WEED BARRIER FABRIC AT 5' O.C. TRIANGULAR SPACING. INSTALL 6" SOIL STAPLE AT 12" O.C. ALONG ALL WEED BARRIER FABRIC SEAMS. OVERLAP FABRIC MIN. OF 6" AT ALL SEAMS AS SHOWN BELOW. INSTALL SOIL STAPLE 6' O.C. ALONG EDGES & 2 AT EACH CORNER.



NOT USED

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Goldfish Swim Schools

Project:
GSS - American Fork, UT
348 South 500 East
American Fork, Utah

Issued	Description	By
04.19.2021	Site Plan Review	TS
06.07.2021	TRC Review	DW
08.24.2021	TRC Revisions 01	DW
09.29.2021	C&S/Bids	DW
10.29.2021	C&S/Bids	CW
12.30.2021	Revisions	CW

Brand Standard:
All Brand Standards must be followed - No deviation permitted without prior written Goldfish Franchise approval.

Seal:
STATE OF UTAH — DARREN G. WILSON — NO. 356187 — 08-24-2021 — LICENSED LANDSCAPE ARCHITECT

Note:
Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

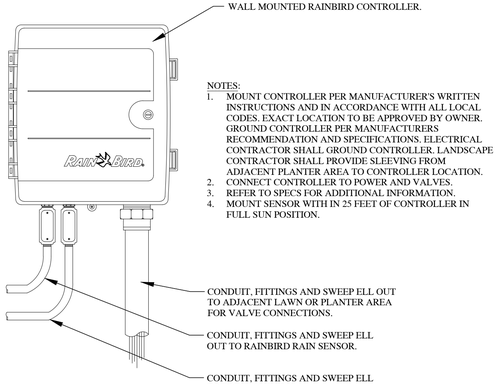
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PLANTING DETAILS

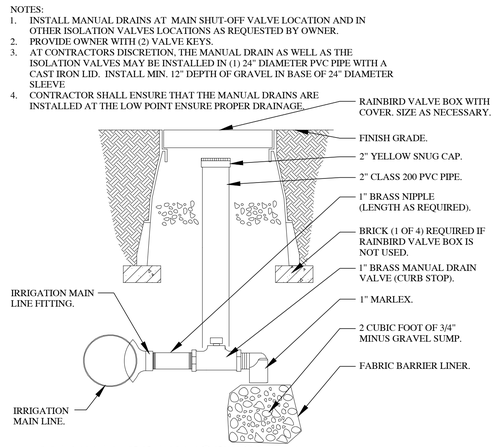
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Sheet Number:
LS3.1

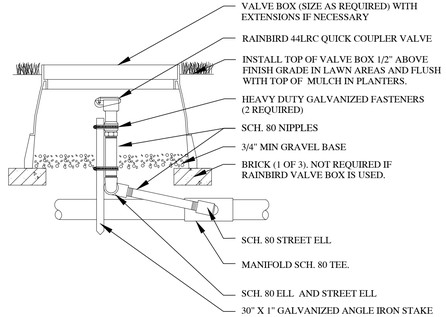
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1 CONTROLLER WITH SENSOR
SCALE: NTS

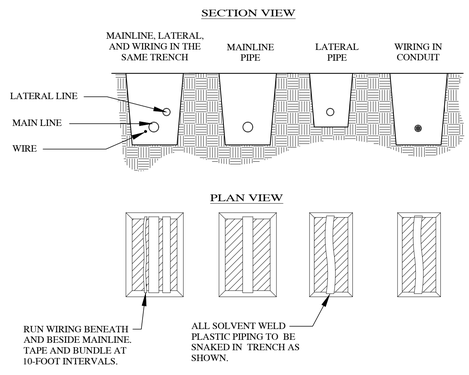


2 MANUAL DRAIN (OPTIONAL)
SCALE: NTS



NOTES:
1. FLUSH ALL PIPING PRIOR TO INSTALLING VALVE.
2. WRAP ALL THREADS WITH TEFLON TAPE. 1.1/2 TO 2 WRAPS MAXIMUM.
3. COMPACT SOILS AROUND VALVE BOX TO 80% OF ORIGINAL DRY DENSITY.
4. INSTALL GEOFABRIC UNDER VALVE BOXES AND TAPE TO PIPE NIPPLES AND VALVE BOX.
5. BOX COLOR - GREEN IN TURF AND TAN IN PLANTER AREAS.
6. IRRIGATION SYSTEM TO BE BLOWN OUT WITH AIR COMPRESSOR THROUGH THE RPZ AND QUICK COUPLERS BEFORE FREEZING TEMPERATURES OCCUR, TYP.
7. SCH 80 PVC TEE OR ELL'S CAN BE USED ON ALL QUICK COUPLERS EXCEPT AT POINT OF CONNECTION (IF QUICK COUPLER(S) ARE INSTALLED AT THE POINT OF CONNECTION). ALL QUICK COUPLER FITTINGS AND NIPPLES AT P.O.C. QUICK COUPLER(S) TO BE GALVANIZED.

3 QUICK COUPLER VALVE
SCALE: NTS

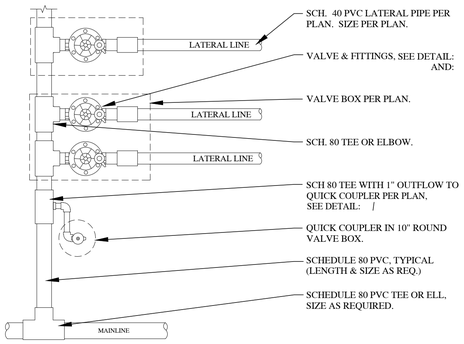


NOTES:
1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS (WITH CLASS 200 OR SCH. 40 OR SCH. 80 PER SPECS.) TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS, SEE NOTES AND SPECS.
3. NO LINE VOLTAGE WIRING SHALL BE ALLOWED IN IRRIGATION TRENCHES.

4 PIPE, WIRE, AND TRENCH
SCALE: NTS

NOT USED

NOT USED



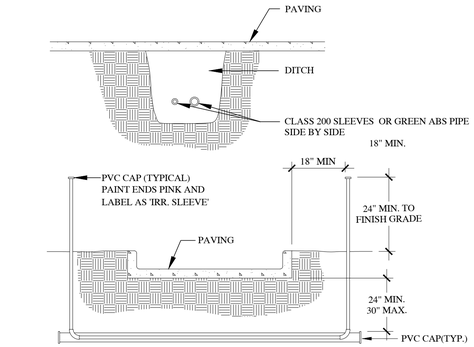
NOTES:
1. ALL VALVE MANIFOLD PIPING AND FITTINGS TO BE SCH. 80 FITTINGS, UNLESS THERE IS A DRIP ZONE ALL BY ITSELF IN WHICH CASE THE PIPING SHALL BE SIZED PER THE FLOW OF THE DRIP ZONE.
2. MODIFY MANIFOLD AS NECESSARY DEPENDING ON HOW MANY VALVES ARE IN A CLUSTER.
3. MODIFY AS REQUIRED DEPENDING ON WHETHER THE VALVES ARE PARALLEL OR PERPENDICULAR TO MAINLINE.

5 VALVE MANIFOLD
SCALE: NTS

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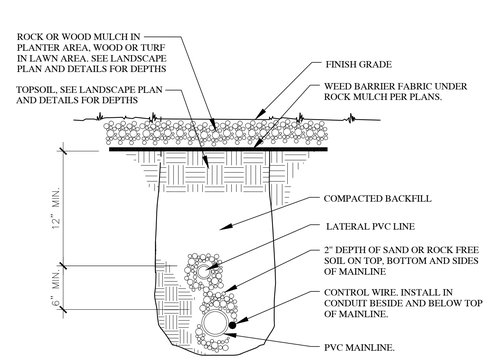
6 CONTROL VALVE
SCALE: NTS

7 VALVE ASSEMBLY
SCALE: NTS



NOTE:
1. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE.
2. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.

8 SLEEVING
SCALE: NTS

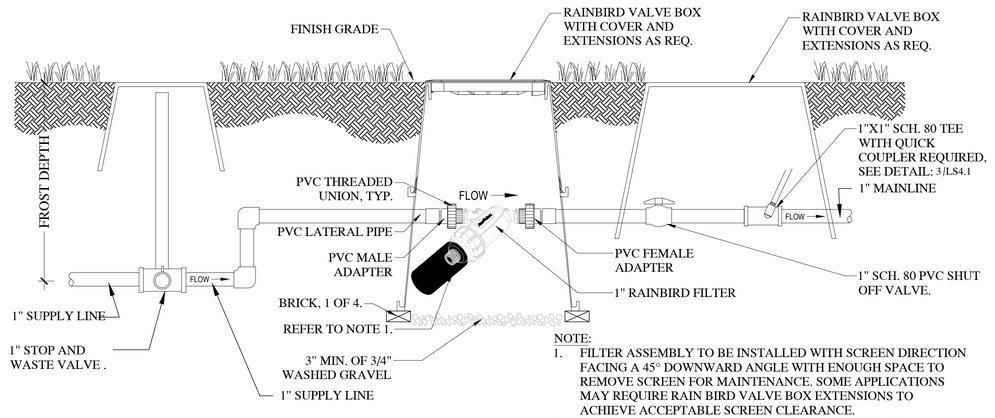


NOTES:
1. PROVIDE SLACK IN CONTROL WIRES AT ALL CHANGES IN DIRECTION.
2. MAINLINE DEPTH SHALL BE 18" DEEP EXCEPT UNDER ASPHALT & CONCRETE PAVING AND AT P.O.C. SHALL BE MIN OF 24" & MAX OF 30". INSTALL ADDITIONAL FITTINGS & RESTRAINTS AS REQUIRED.
3. MAINLINE AND LATERAL LINES SHALL BE KEPT MIN. 12" FROM ALL SIDEWALKS AND CURBS.

9 TRENCH SECTION
SCALE: NTS

NOT USED

10 POP-UP SPRAY
SCALE: NTS



NOTE:
1. FILTER ASSEMBLY TO BE INSTALLED WITH SCREEN DIRECTION FACING A 45° DOWNWARD ANGLE WITH ENOUGH SPACE TO REMOVE SCREEN FOR MAINTENANCE. SOME APPLICATIONS MAY REQUIRE RAIN BIRD VALVE BOX EXTENSIONS TO ACHIEVE ACCEPTABLE SCREEN CLEARANCE.
2. BRICKS ARE NOT REQUIRED UNDER VALVE BOXES IF RAINBIRD VALVE BOXES ARE USED.
3. INSTALL MISC. REDUCER FITTINGS AS REQ. (NOT SHOWN).

11 1-1/2" SCREEN FILTER IN BOX
SCALE: NTS

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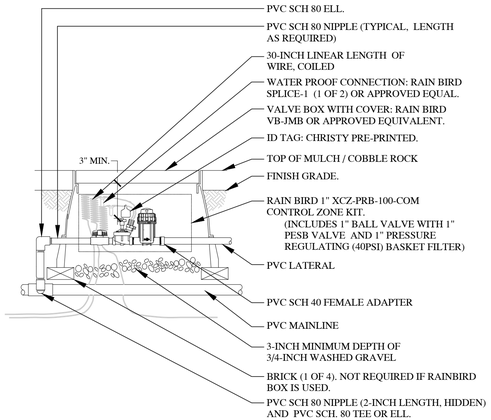
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IRRIGATION DETAILS

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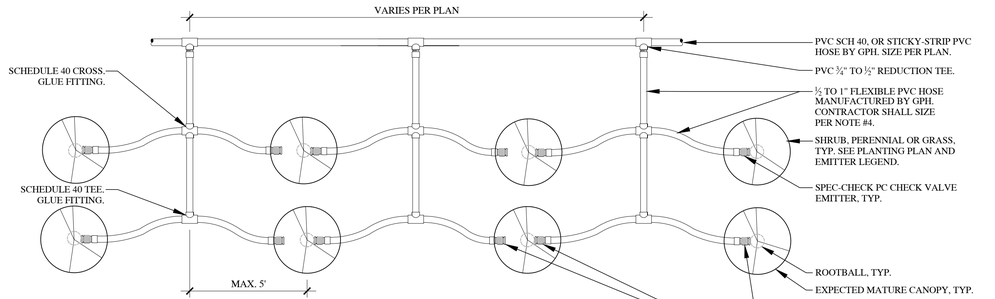
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12 1" DRIP CONTROL ZONE KIT

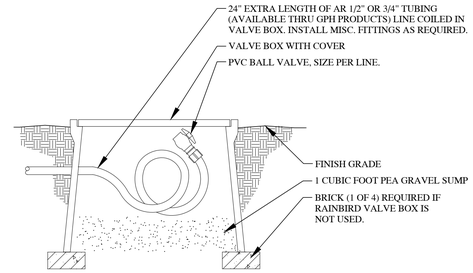
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NOTES:
1. EMITTER SPACING SHALL BE BASED ON PLANT SPACING. INSTALL ALL IRRIGATION USING THE COMPONENTS DESCRIBED ABOVE.
2. IRRIGATION EQUIPMENT SHALL BE COMPLETELY INSTALLED PRIOR TO PLANT LAYOUTS.
3. ADJUST IRRIGATION SPACING TO ACCOMMODATE FINAL PLANT LAYOUT.
4. 1/2" PVC FLEX HOSE SHALL NOT EXCEED 4GPM, 3/4" PVC FLEX HOSE SHALL NOT EXCEED 8GPM AND 1" PVC FLEX HOSE SHALL NOT EXCEED 13GPM.
5. AT OWNERS DISCRETION, A LESS EXPENSIVE DRIP SYSTEM MAY BE INSTALLED. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, SUBMITTAL CUT SHEETS AND POTENTIAL COST SAVINGS TO OWNER. HOWEVER, THE OWNER AND LANDSCAPE ARCHITECT MUST APPROVE ALL CHANGES IN MATERIALS AND CONSTRUCTION PRACTICES IF DIFFERENT FROM THE PLAN.
6. SMALL EVERGREEN TREES MAY NEED FEWER EMITTERS. CONSULT WITH THE LANDSCAPE ARCHITECT ON-SITE PRIOR TO INSTALLING IRRIGATION TO DETERMINE QUANTITY OF EMITTERS.
7. SEE IRRIGATION SHEET FOR DRIP EMITTER LEGEND.
8. USE IPS WELDON 795 GLUE AND P70 PRIMER PER GPH INC. SPECIFICATIONS.
9. DO NOT INSTALL PIPE, FITTINGS, OR GLUE IN TEMPERATURES BELOW 40 DEGREES. SEE MANUFACTURER SPECIFICATIONS FROM MORE INFORMATION.

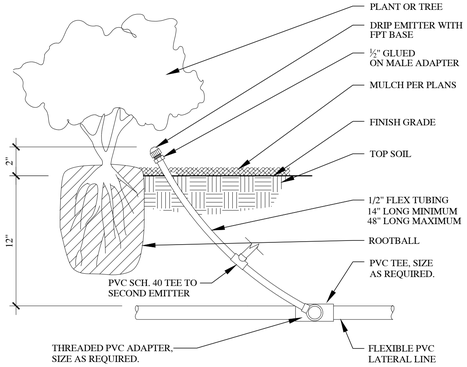
13 GPH DRIP EMITTER PLAN VIEW

SCALE: NTS



14 DRIP LINE FLUSH CAP

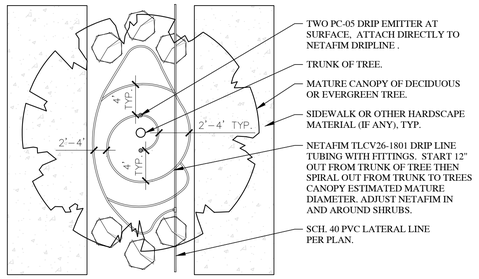
SCALE: NTS



NOTE:
1. FOR LAYOUT OF MULTIPLE SHRUBS, CONTRACTOR SHALL USE TEE'S AS NECESSARY. FOR LAYOUT INFORMATION, SEE DETAIL: /

15 DRIP EMITTER

SCALE: NTS



NOTES:
1. LAYOUT SHOWN IS TYPICAL. ON SITE MODIFICATIONS WILL BE REQUIRED DUE TO VARYING SIZE OF PLANTER ISLANDS. CONSULT WITH LANDSCAPE ARCHITECT ON-SITE PRIOR TO INSTALLATION TO DETERMINE HOW MUCH DRIP NEEDS TO BE INSTALLED AND WHAT CONFIGURATION IS APPROPRIATE.
2. INSTALL NETAFIM DRIP TUBING UNDER WEED BARRIER FABRIC. USE THIS DETAIL FOR ALL TREES PLANTED IN COBBLE ROCK AREAS. CONTRACTOR SHALL BE CAREFUL NOT TO DAMAGE OR PINCH TUBING WHEN PLACING COBBLE ROCK AND BOULDERS.
3. TREES PLANTED IN LAWN AREAS WILL NOT BE WATERED BY DRIP BUT WILL BE WATERED BY THE LAWN SPRINKLERS.
4. THIS DETAIL IS FOR DESIGN INTENT ONLY AND IS NOT TO SCALE. CONTRACTOR MUST INSTALL DRIP LINE PER THIS DETAIL OUT TO THE DRIPLINE OF THE TREES MATURE SIZE.
5. FOR LINEAR PLANTERS WITH TREES, INSTALL NETAFIM IN STRAIGHT LINES RATHER THAN A CIRCULAR PATTERN AROUND THE TREE.
6. INSTALL A FLUSH VALVE (NOT SHOWN) AT THE END OF ALL DRIP LINES, PER PLAN.

16 TREE DRIP WITH PARTIAL PLANTING UNDER CANOPY

SCALE: NTS

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08.24.2021	TRC Revisions 01	DW
09.29.2021	C&S/Bids	DW
10.29.2021	C&S/Bids	CW
12.30.2021	Revisions	CW

Brand Standard:

All Brand Standards must be followed - No deviation permitted without prior written Goldfish Franchise approval.

Seal:

STATE OF UTAH
DARREN G. WILSON
NO. 356187
08-24-2021
LICENSED LANDSCAPE ARCHITECT

Note:

Do not scale drawings. Use calculated dimensions only. Verify existing conditions in field.

North Arrow:

Sheet Title:

IRRIGATION DETAILS

Project Number:

21-017

Sheet Number:

LS4.2

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