

# TRAPPERS RIDGE PHASE 7

## CONSTRUCTION DOCUMENTS EDEN, WEBER COUNTY, UTAH

### TRAFFIC CONTROL & SAFETY NOTES

1. BARRICADING AND DETOURING SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CURRENT STATE OF UTAH DEPARTMENT OF TRANSPORTATION MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES, AND THE CURRENT COUNTY STANDARD DRAWING, AND SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO ANY WORK.
2. NO STREET SHALL BE CLOSED TO TRAFFIC WITHOUT WRITTEN PERMISSION FROM THE CITY TRAFFIC ENGINEER, EXCEPT WHEN DIRECTED BY LAW ENFORCEMENT OR FIRE OFFICIALS.
3. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROVIDE FOR SMOOTH TRAFFIC FLOW AND SAFETY. ACCESS SHALL BE MAINTAINED FOR ALL PROPERTIES ADJACENT TO THE WORK.
4. DETOURING OPERATIONS FOR A PERIOD OF SIX CONSECUTIVE CALENDAR DAYS, OR MORE, REQUIRE THE INSTALLATION OF TEMPORARY STREET STRIPING AND REMOVAL OF INTERFERING STRIPING BY SANDBLASTING. THE DETOURING STRIPING PLAN OR CONSTRUCTION TRAFFIC CONTROL PLAN MUST BE SUBMITTED TO THE COUNTY TRAFFIC ENGINEER FOR REVIEW AND APPROVAL.
5. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE END OF THE WORK TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER
6. TRAFFIC CONTROL DEVICES (TCDs) SHALL REMAIN VISIBLE AND OPERATIONAL AT ALL TIMES.

### UTILITY DISCLAIMER

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.

### NOTICE TO CONTRACTOR

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF UTAH DEPARTMENT OF INDUSTRIAL RELATIONS CONSTRUCTION SAFETY ORDERS". THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH SAID REGULATIONS AND ORDERS.

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

### SANITARY SEWER GENERAL NOTES

1. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN CONFORMANCE WITH WOLF CREEK WATER AND SEWER IMPROVEMENT (WCWSID) DISTRICT STANDARDS AND SPECIFICATIONS.
2. ALL GRAVITY SANITARY SEWER LINES SHALL BE SDR-35 PVC MATERIAL. SEWER LINE CONSTRUCTION AND MATERIALS SHALL CONFORM TO ASTM STANDARDS AND SPECIFICATIONS.
3. DISTANCES SHOWN ON PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT.
4. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATION. PIPELINE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS, GROUT AND STEEL SHIMS TO ADJUST THE MANHOLE FRAME TO THE REQUIRED FINAL GRADE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS. ALL FRAMES SHALL BE ADJUSTED TO FINAL GRADE.
5. ALL SANITARY SEWER MAIN TESTING SHALL BE IN ACCORDANCE WITH (WCWSID) STANDARDS AND SPECIFICATIONS. COPIES OF ALL TEST RESULTS SHALL BE PROVIDED TO THE PUBLIC WORKS SANITARY SEWER DEPARTMENT HEAD PRIOR TO FINAL ACCEPTANCE.
6. COMPACTION TESTING OF ALL TRENCHES WITH THE PROJECT SITE MUST BE ATTAINED AND RESULTS SUBMITTED PRIOR TO FINAL ACCEPTANCE.
7. CONTRACTOR IS RESPONSIBLE TO PROTECT ALL EXISTING STRUCTURES AND IMPROVEMENTS DURING INSTALLATION OF SANITARY SEWER LINE.
8. WHERE CONNECTION TO EXISTING UTILITY IS PROPOSED, CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION AND NOTIFY OWNER/ENGINEER IF LOCATION AND ELEVATION OF EXISTING UTILITY VARIES FROM THE DESIGN.
9. CAMERA TESTING AND PRESSURE TESTING PER (WCWSID) STANDARD.

### SWPPP GENERAL NOTES

1. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AS REQUIRED BY THE COUNTY AND STATE.
2. ALL STRUCTURAL EROSION MEASURES SHALL BE INSTALLED AS SHOWN ON THE SWPPP PLAN, PRIOR TO ANY OTHER GROUND-DISTURBING ACTIVITY. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE CONTRACTOR, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS ARE STABILIZED WITH HARD SURFACE OR LANDSCAPING.

### GENERAL NOTES

1. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION OF SITE IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH BY THE COUNTY ENGINEER, PLANNING, CODES AND SPECIFICATIONS AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY.
2. 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, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT THE CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL NOTIFY THE DESIGNATED PUBLIC WORKS INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTH DISTURBING ACTIVITY, OR CONSTRUCTION ON ANY AND ALL PUBLIC IMPROVEMENTS.
4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE COUNTY AND ALL UTILITY COMPANIES INVOLVED WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE.
5. THE CONTRACTOR SHALL HAVE ONE (1) COPY OF APPROVED PLANS, AND ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB, ON SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.
7. IF DURING THE CONSTRUCTION PROCESS CONDITIONS ARE ENCOUNTERED BY THE CONTRACTOR, HIS SUBCONTRACTORS, OR OTHER AFFECTED PARTIES, WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
8. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED AND RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT DRAWINGS ON A SET OF RECORD DRAWINGS KEPT AT THE CONSTRUCTION SITE, AND AVAILABLE TO THE COUNTY INSPECTOR AT ALL TIMES.
11. THE CONTRACTOR SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF WATER LINES AND DRY UTILITIES.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL UTILITY RELOCATIONS CONSISTENT WITH THE CONTRACTORS SCHEDULE FOR THIS PROJECT, WHETHER SHOWN OR NOT SHOWN AS IT RELATES TO THE CONSTRUCTION ACTIVITIES CONTEMPLATED IN THESE PLANS.
13. FOLLOW RECOMMENDATIONS IN GEOTECH REPORT.

### STORM SEWER GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:  
A) OBTAIN ALL REQUIRED PERMITS FROM THE COUNTY OR REGULATORY AGENCIES, INCLUDING PERMITS TO WORK IN THE RIGHT-OF-WAY.  
B) RESTORATION OF EXISTING IMPROVEMENTS INCLUDING BUT NOT LIMITED TO FENCES, SOD, LANDSCAPING, PAVEMENT, SPRINKLER SYSTEM.  
C) VERIFICATION AND PROTECTION OF ALL EXISTING IMPROVEMENTS WITHIN THE LIMITS OF CONSTRUCTION.  
D) PROVIDING AS-BUILT DRAWINGS TO THE COUNTY AND THE ENGINEER.  
E) ALL PERMITTING, DEVELOPMENT, LOCATION, CONNECTION AND INSPECTION AND SCHEDULING FOR SUCH.
2. ALL STORM SEWER CONNECTIONS SHALL BE IN CONFORMANCE WITH COUNTY STANDARDS AND SPECIFICATIONS.
3. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATION. PIPELINE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS, GROUT, AND STEEL SHIMS TO ADJUST THE MANHOLE FRAME TO THE REQUIRED FINAL GRADE IN CONFORMANCE WITH COUNTY STANDARDS AND SPECIFICATIONS AND PLANS. ALL FRAMES SHALL BE ADJUSTED TO FINAL GRADE PRIOR TO PLACEMENT OF ASPHALT PAVING.
4. COMPACTION OF ALL TRENCHES WITHIN THE PROJECT SITE MUST BE ATTAINED AND COMPACTION RESULTS SUBMITTED PRIOR TO FINAL ACCEPTANCE.
5. ALL STORM DRAIN PIPES IN THE COUNTY RIGHT-OF-WAY SHALL BE RCP CL III.
6. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH THE PAVEMENT AND SHALL HAVE TRAFFIC BEARING LIDS. ALL STORM SEWER LIDS SHALL BE LABELED STORM DRAIN.
7. WHERE CONNECTION TO EXISTING UTILITY IS PROPOSED, CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION AND NOTIFY OWNER/ENGINEER IF LOCATION AND ELEVATION OF EXISTING UTILITY VARIES FROM THE DESIGN.

### VICINITY MAP



### GENERAL GRADING NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APWA STANDARDS AND SPECIFICATION FOR PUBLIC WORKS AND THE COUNTY STANDARDS. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING FOUNDATIONS AND ENTRIES. FINISHED GRADE AT FOUNDATION FOR WOOD FRAMED STRUCTURES SHALL BE 8 INCHES BELOW TOP OF FOUNDATION AND DRAINAGE SHALL BE A MINIMUM OF 5% WITHIN 10 FEET FROM THE BUILDING.
2. MAXIMUM SLOPES SHALL BE 3:1 FOR CUT AND FILL UNLESS OTHERWISE NOTED.
3. COMPACTION REQUIREMENTS AND TESTING SHALL BE PERFORMED TO MEET THE COUNTY STANDARDS.
4. NO FILL SHALL BE PLACED UNTIL VEGETATION HAS BEEN REMOVED AND SUB-GRADE PREPARED PER THE SOILS REPORT.
5. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS.
6. CONTRACTOR SHALL COMPLY WITH STORM WATER POLLUTION PREVENTION PLAN BY INSTALLING BMP'S PRIOR TO COMMENCEMENT OF EXCAVATION ACTIVITIES.
7. ALL RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ALL SUBSEQUENT REPORTS, ADDENDUM ETC. SHALL BE CONSIDERED A PART OF THIS GRADING PLAN AND SHALL BE COMPLIED WITH.
8. THE CONTRACTOR SHALL CONTACT BLUE STAKES FOR LOCATION MARKING PRIOR TO COMMENCING EXCAVATION ACTIVITIES.
9. COUNTY MAY REQUIRE A PRE-CONSTRUCTION MEETING BEFORE A PERMIT IS ISSUED.
10. STREETS ADJACENT TO THE PROJECT SHALL BE CLEAN AT ALL TIMES.
11. CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR ALL REQUIRED INSPECTIONS.
12. PRIOR TO TAKING WATER FROM A COUNTY FIRE HYDRANT, THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE WATER UTILITY TO OBTAIN A WATER METER.

### CULINARY WATER GENERAL NOTES

1. ALL INSTALLATION AND MATERIALS SHALL CONFORM TO WATER UTILITY STANDARDS, SPECIFICATIONS AND PLANS.
2. THRUST BLOCKING IS REQUIRED AT ALL BENDS AND FITTINGS. TIE RODS SHALL BE USED AT ALL BENDS AND FITTINGS WHERE THRUST BLOCKS DO NOT BEAR AGAINST UNDISTURBED SOIL.
3. ALL WATERLINES AT SEWER CROSSINGS SHALL BE LOCATED ABOVE AND HAVE AN 18-INCH VERTICAL SEPARATION FROM THE SEWER PIPE. IF THIS IS NOT PROVIDED, THE WATERLINE SHALL BE INSTALLED WITH 20 L.F. OF CONCRETE CASING CENTERED OVER THE SEWER PIPE.
4. DISINFECTION TESTS SHALL BE PERFORMED BY THE WATER UTILITY WITH COOPERATION FROM THE CONTRACTOR IN PERFORMING ANY NECESSARY EXCAVATION AND SUBSEQUENT BACKFILLING AT NO COST TO THE DISTRICT.
5. CHLORINATION OF COMPLETED WATER LINE. THE NEW WATER LINES SHALL BE DISINFECTED BY CHLORINATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL RELATED COSTS AND FEES RELATED TO THE CHLORINATION OF THE COMPLETED WATER LINE. THIS TEST SHALL BE PERFORMED PRIOR TO CONNECTION OF THE NEW WATER LINES TO THE EXISTING WATER SYSTEM. THE CONTRACTOR SHALL NOTIFY THE WATER UTILITY AT LEAST 24 HOURS BEFORE THE CHLORINATION IS DESIRED.
6. A MINIMUM HORIZONTAL CLEARANCE OF 10 FEET SHALL BE MAINTAINED FROM SANITARY SEWER MAINS.
7. UNLESS OTHERWISE SPECIFIED, ALL WATERLINES SHALL BE AWWA C900 PVC CLASS 150, PER ASTM D2241.
8. CONTRACTOR SHALL LOCATE VALVES PRIOR TO CONNECTION WITH EXISTING SYSTEM, BUT SHALL NOT OPERATE ANY VALVE WITHOUT PERMISSION FROM THE WATER UTILITY.
9. ALL WATER MAINS, VALVES, FIRE HYDRANTS, SERVICES AND APPURTENANCES SHALL BE INSTALLED, TESTED, AND APPROVED PRIOR TO PAVING.
10. THERE SHALL BE A WATER SUPPLY TO THE DEVELOPMENT BEFORE ANY WOOD CONSTRUCTION STARTS.

### WEBER FIRE DISTRICT GENERAL NOTES

1. FIRE FLOW: ALL DWELLINGS STRUCTURES OVER 5000 SQ. FT. WHICH DO NOT MEET THE FIRE FLOW REQUIREMENTS, SHALL BE EQUIPPED WITH AN NFPA 13D COMPLIANT FIRE SPRINKLER SYSTEM OR BE PROVIDED WITH AREA SEPARATIONS COMPLIANT WITH THE IBC/IRC. FOR MORE INFORMATION REGARDING FIRE FLOW, PLEASE CONTACT FIRE MARSHAL THUESON AT 801-782-3580.
2. ROADS AND BRIDGES SHALL BE DESIGNED, CONSTRUCTED AND MAINTAINED TO SUPPORT AN IMPOSED LOAD OF 75,000 LBS.
3. ALL ROADS SHALL BE DESIGNED, CONSTRUCTED, SURFACED AND MAINTAINED SO AS TO PROVIDE AN ALL-WEATHER DRIVING SURFACE.
4. FIRE ACCESS ROADS FOR THIS PROJECT SHALL BE COMPLETED AND APPROVED PRIOR TO ANY COMBUSTIBLE CONSTRUCTION. TEMPORARY ROADS SHALL MEET THE SAME REQUIREMENTS FOR HEIGHT, WIDTH AND IMPOSED LOADS AS PERMANENT ROADS.
5. ALL REQUIRED FIRE HYDRANTS AND WATER SYSTEMS SHALL BE INSTALLED, APPROVED AND FULLY FUNCTIONAL PRIOR TO ANY COMBUSTIBLE CONSTRUCTION.

ALL IMPROVEMENTS TO CONFORM TO CURRENT COUNTY STANDARDS AND SPECIFICATIONS

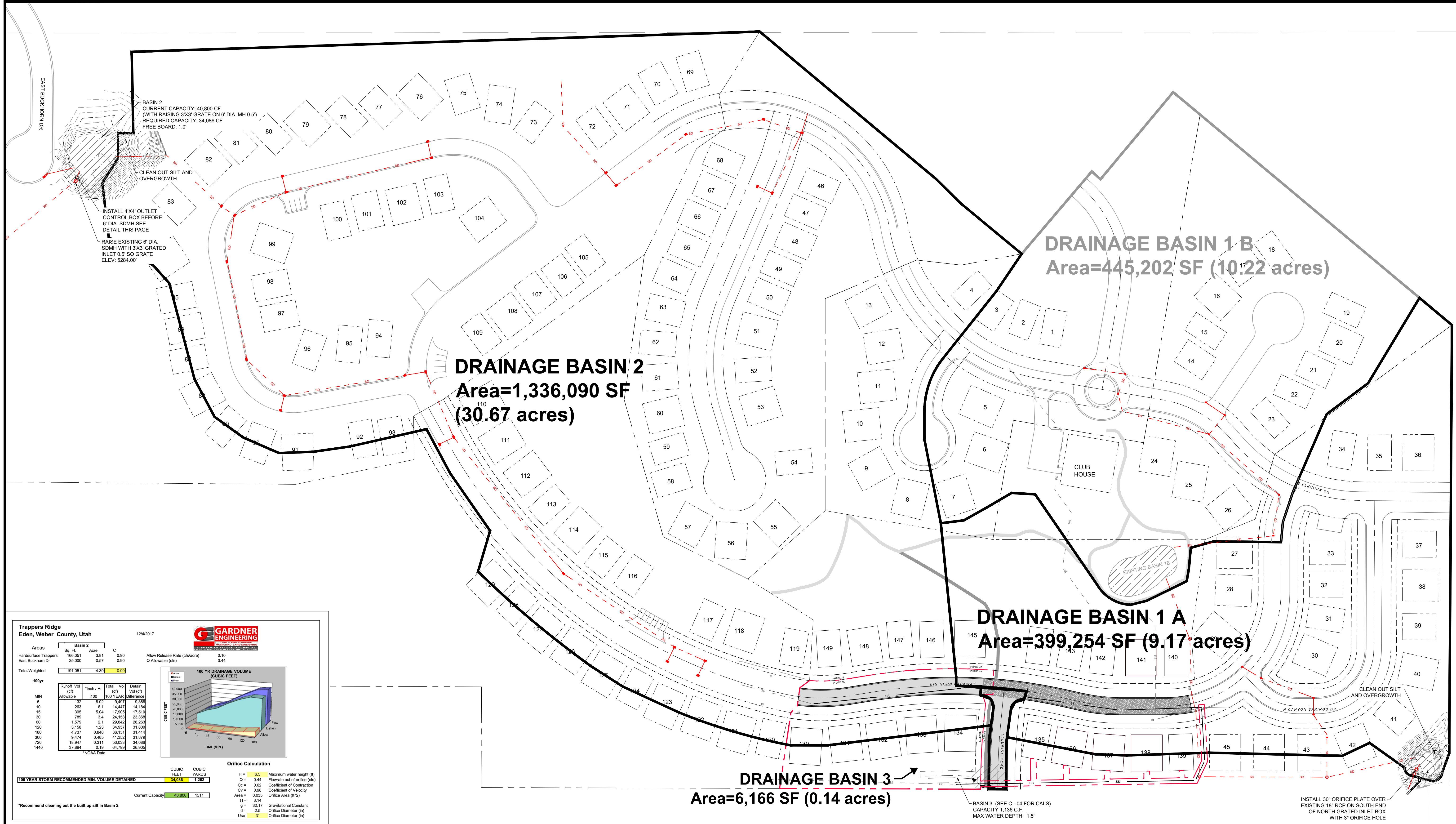
CULINARY WATER AND SEWER IMPROVEMENTS TO CONFORM TO THE WOLF CREEK WATER AND SEWER IMPROVEMENT DISTRICT STANDARDS AND SPECIFICATIONS

#### SHEET INDEX

C-00	-	COVER SHEET
C-01	-	DRAINAGE OVERVIEW
C-02	-	UTILITY OVERVIEW
C-03	-	BIG HORN PARKWAY PLAN AND PROFILE
C-04	-	TELLURIDE ROAD PLAN AND PROFILE
C-05	-	BACK LOT SEWER PLAN AND PROFILE
C-06	-	SWPPP



TRAPPERS RIDGE PHASE 7  
CONSTRUCTION DOCUMENTS



Trappers Ridge  
Eden, Weber County, Utah  
12/4/2017

**GARDNER ENGINEERING**

Areas	Sq. Ft.	Acres	C
Handsurface Trappers	166,051	3.81	0.90
East Buchhorn Dr	25,000	0.57	0.80
<b>Total/Weighted</b>	<b>191,051</b>	<b>4.39</b>	<b>0.90</b>

Allow Release Rate (cfs/acre) 0.10  
Q Allowable (cfs) 0.44

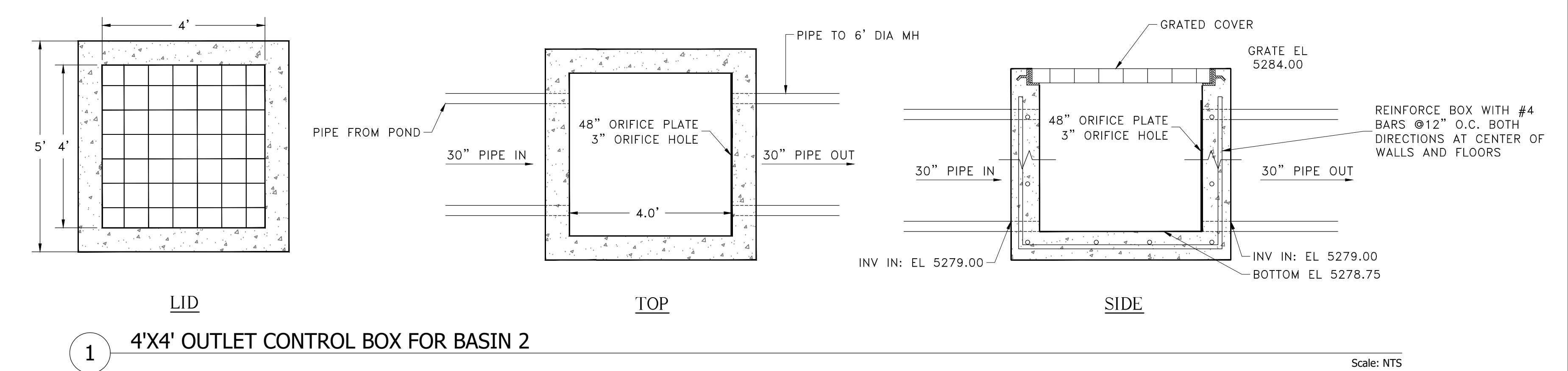
Runoff Vol (cf)	Inch/Hr	Total Vol (cf)	Detain Vol (cf)
MIN	1.32	1,929	9,390
5	2.63	6.1	14,447
10	3.95	5.04	17,268
15	7.89	3.4	24,158
30	1,579	2.1	29,842
60	3,158	1.23	34,957
120	4,737	0.848	36,151
180	6,474	0.485	41,252
360	18,947	0.311	53,033
720	37,894	0.159	64,795
1440			26,905

100 YR DRAINAGE VOLUME (CUBIC FEET)

Orifice Calculation

CUBIC FEET	CUBIC YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME DETAINED	34,056
Current Capacity	1,511

Use 3" Orifice Diameter (in)



Trappers Ridge  
Eden, Weber County, Utah  
11/16/2017

**GARDNER ENGINEERING**

Areas	Sq. Ft.	Acres	C
Handsurface	54,094	1.25	0.90

Allow Release Rate (cfs/acre) 0.10  
Q Allowable (cfs) 0.13

Runoff Vol (cf)	Inch/Hr	Total Vol (cf)	Detain Vol (cf)
MIN	3.8	8.02	2,371
5	7.5	6.1	4,138
10	11.3	5.04	5,125
15	22.6	3.4	6,915
30	45.2	2.1	8,542
60	90.4	1.23	10,006
120	135.6	0.848	10,347
180	212.1	0.485	11,836
360	424.2	0.311	15,179
720	848.4	0.159	18,547
1440			7,701

100 YR DRAINAGE VOLUME (CUBIC FEET)

Orifice Calculation

CUBIC FEET	CUBIC YARDS
100 YEAR STORM RECOMMENDED MIN. VOLUME DETAINED	9,756
Current Capacity	393

Use 3" Orifice Diameter (in)

SCALE: 1" = 80'

DATE: DEC 2017  
DESIGN: C/P/PC  
DRAWN: C/P  
CHECKED: PC

REVISIONS  
DATE: 1/4/2019  
DESCRIPTION: PHASE 7A UPDATES

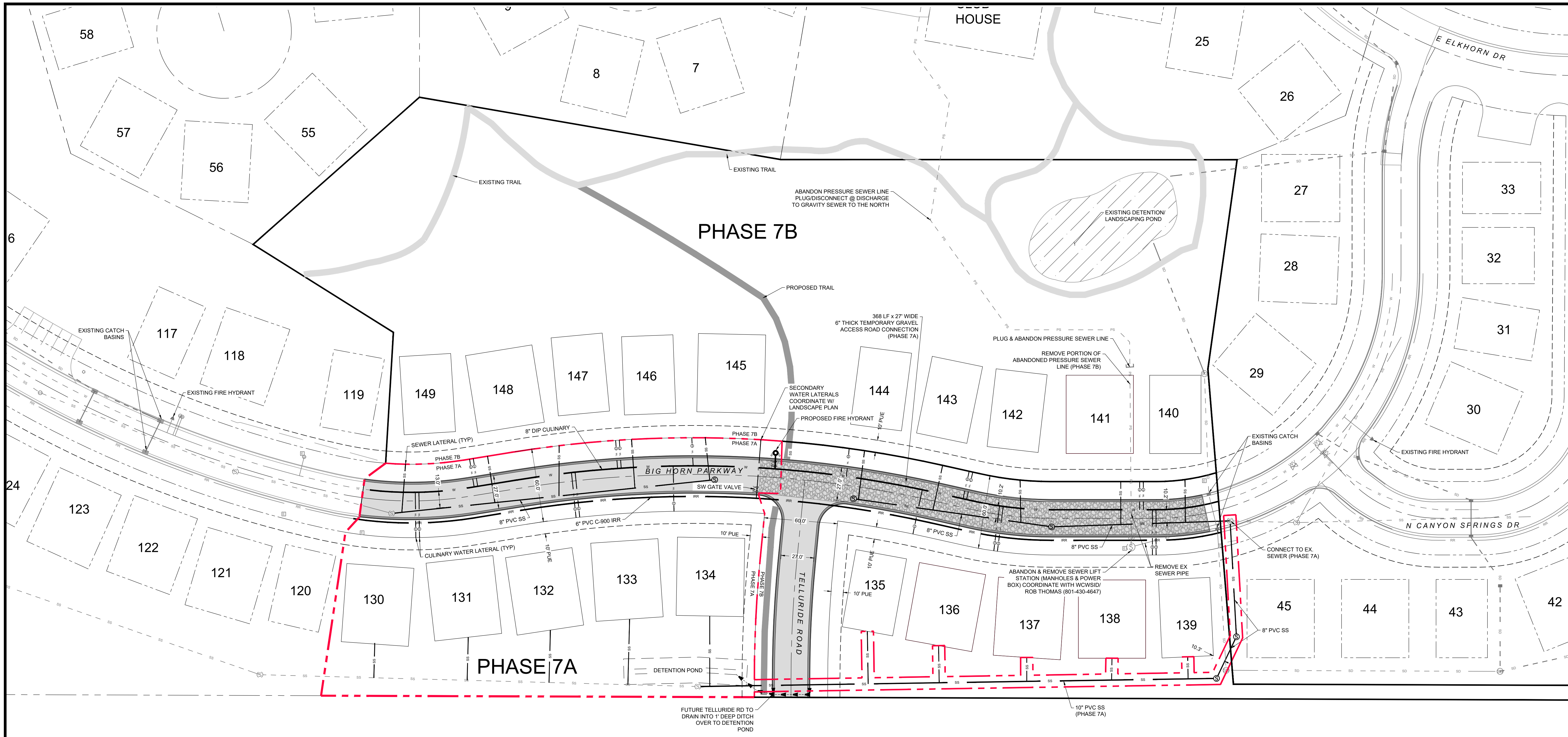
REGISTERED PROFESSIONAL ENGINEER  
No. 8010280  
RYAN A. CHRISTENSEN  
STATE OF UTAH

DWG.: EL WATTS ENTERPRISES TRAPPERS RIDGE PHASE 7A DESIGN (DWG) TRAPPERS PHASE 7 DESIGN

DRAINAGE OVERVIEW  
TRAPPERS RIDGE  
EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**  
CIVIL - LAND PLANNING  
MUNICIPAL - LAND SURVEYING  
5150 SOUTH 375 EAST OGDEN, UT  
OFFICE: 801-476-0202 FAX: 801-476-0066

C -01



SCALE	1" = 40'
DATE	DEC 2017
DESIGN	CJP/PC
DRAWN	CJP
CHECKED	PC



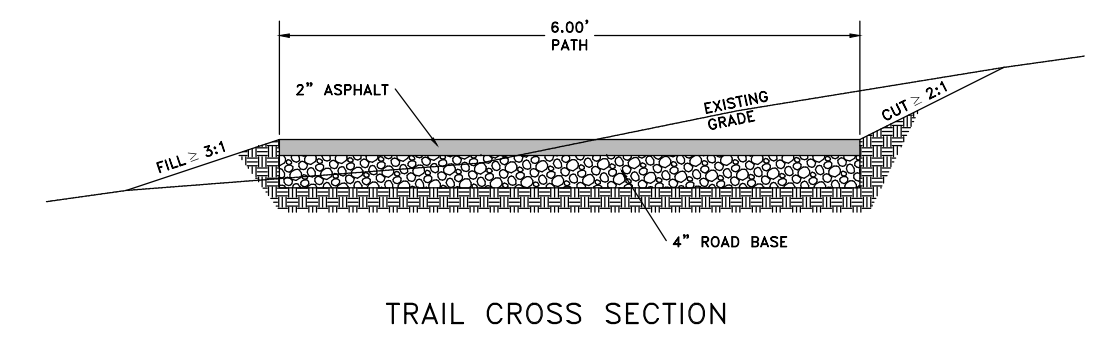
UTILITY OVERVIEW  
 TRAPPERS RIDGE PHASE 7  
 PHASE 7  
 EDEN, WEBER COUNTY, UTAH

**EXISTING IMPROVEMENTS**

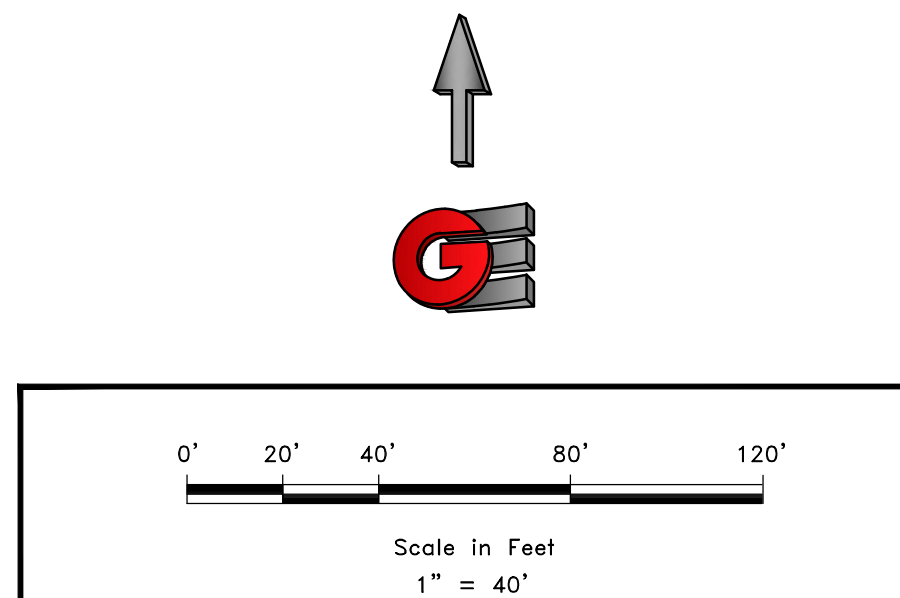
- ASPHALT
- LOT
- STORM
- IRRIGATION
- PRESSURE SEWER
- SANITARY SEWER
- WATER
- TBC
- TOP OF BANK
- EXISTING TRAIL
- ELECTRICAL BOX
- STORM DRAIN BOX
- STORM DRAIN MANHOLE
- FIRE HYDRANT
- SEWER MANHOLE

**PROPOSED IMPROVEMENTS**

- PHASE BOUNDARY
- ASPHALT
- LOT
- RIGHT OF WAY
- EASEMENT
- STORM
- IRRIGATION
- SANITARY SEWER
- WATER
- TBC
- PROPOSED TRAIL
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- SEWER MANHOLE



- GENERAL NOTES:**
- THE LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE ONLY AND THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS.
  - ALL CONSTRUCTION SHALL CONFORM TO WEBER COUNTY STANDARDS.
  - ALL CONSTRUCTION SHALL CONFORM TO WOLF CREEK WATER AND SEWER STANDARDS.
  - THE STREET STRUCTURAL CROSS SECTION IS PER DETAILS CONTAINED WITHIN THESE PLANS.
  - THE SEPARATION BETWEEN THE CULINARY WATER AND SEWER SHALL BE 10' MIN.



**GARDNER ENGINEERING**  
 CIVIL - LAND PLANNING  
 MUNICIPAL - LAND SURVEYING  
 5150 SOUTH 375 EAST OGDEN, UT  
 OFFICE: 801.476.0202 FAX: 801.476.0066



SCALE: 1" = 30'

DATE: DEC 2017

DESIGN: CJP/PC

DRAWN: CJP

CHECKED: RC

REVISIONS

DATE	DESCRIPTION
1/4/2019	PHASE 7A UPDATES

REGISTERED PROFESSIONAL ENGINEER

No. 8010280

RYAN A. CHRISTENSEN

STATE OF UTAH

DMG: EL WATTE, ENTERPRISES/TRAFFERS RIDGE PHASE 7, DESIGN/DWG

BIG HORN PARKWAY PLAN AND PROFILE

TRAPPERS RIDGE PHASE 7

PHASE 7

EDEN, WEBER COUNTY, UTAH

**GARDNER ENGINEERING**

CIVIL - LAND PLANNING

MUNICIPAL - LAND SURVEYING

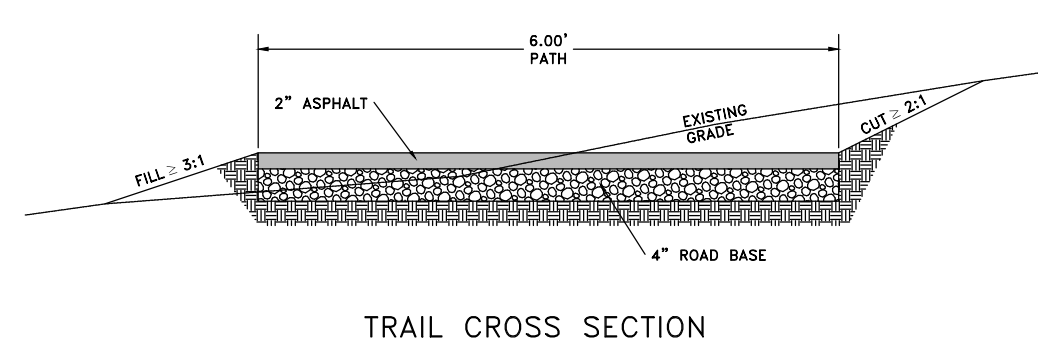
5150 SOUTH 375 EAST OGDEN, UT

OFFICE: 801-476-0202 FAX: 801-476-0066

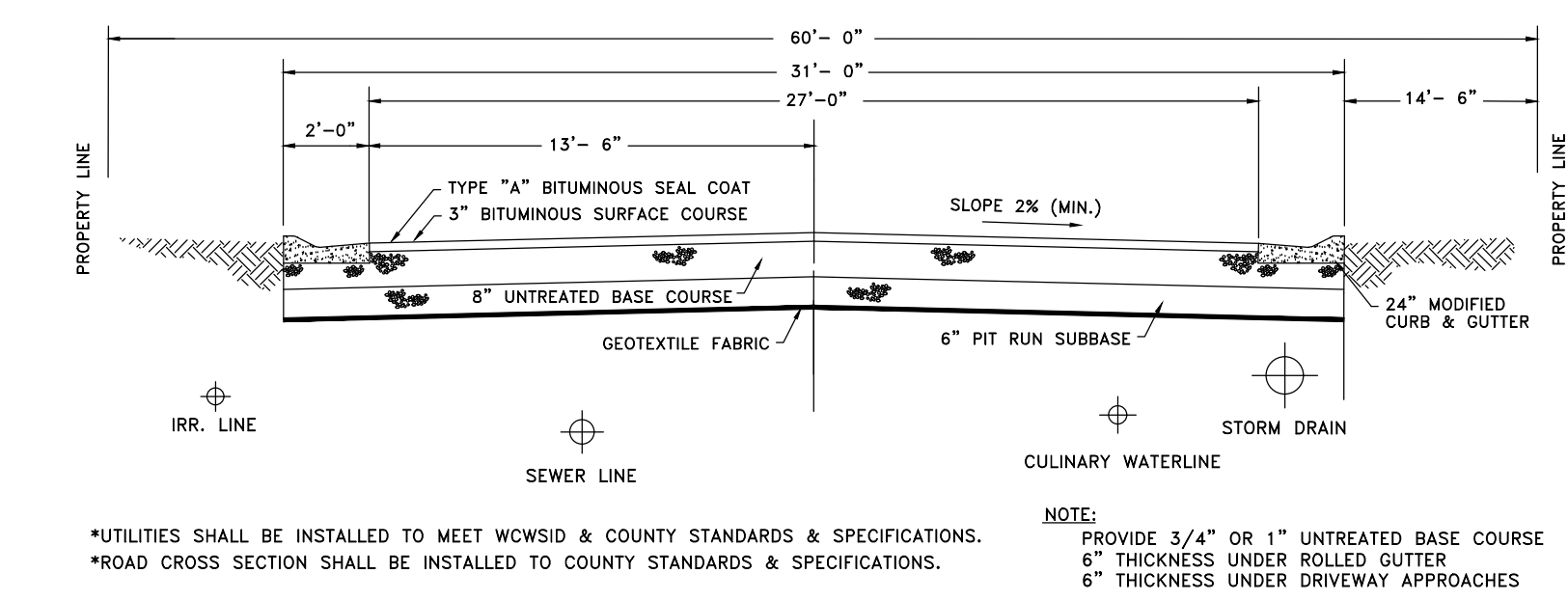
C -03

**GENERAL NOTES:**

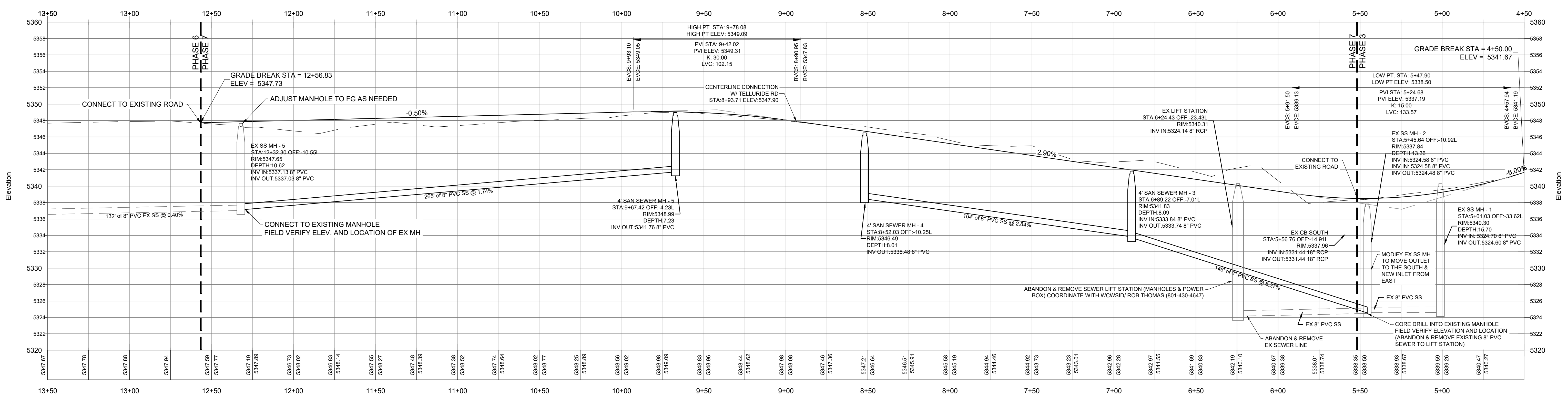
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4. THE STREET STRUCTURAL CROSS SECTION IS PER DETAILS CONTAINED WITHIN THESE PLANS.
5. THE SEPARATION BETWEEN THE CULINARY WATER AND SEWER SHALL BE 10' MIN.

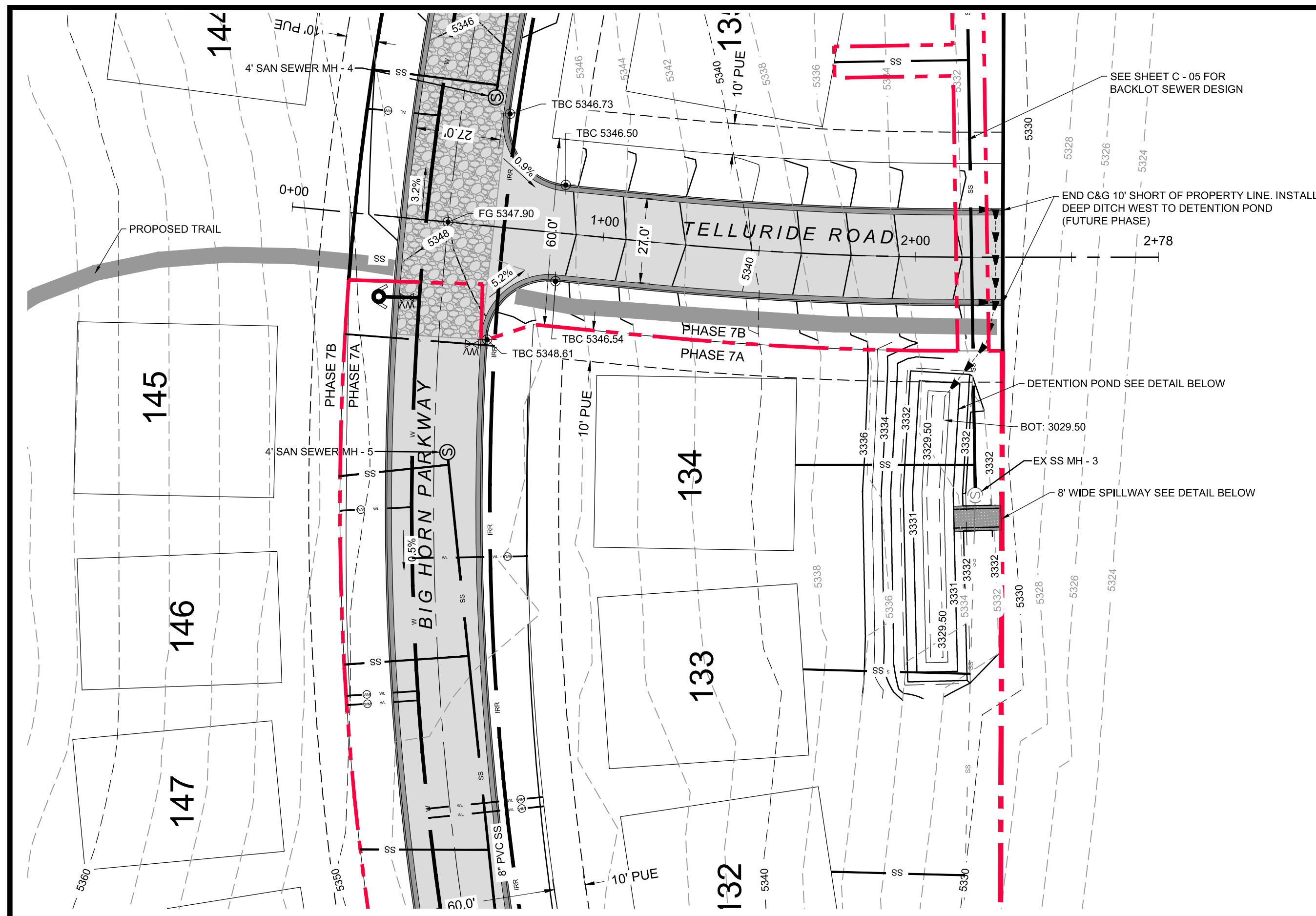


**STANDARD 60' SUBDIVISION ROADWAY SECTION**



**BIG HORN PARKWAY PH 7 PROFILE**

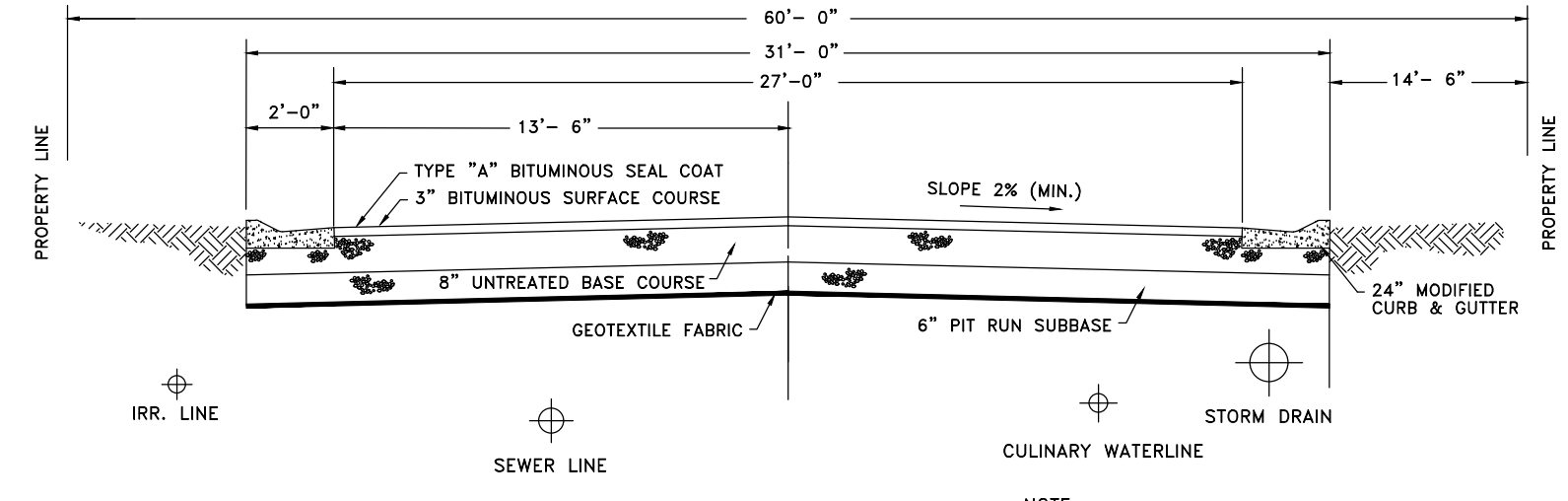




**GENERAL NOTES:**

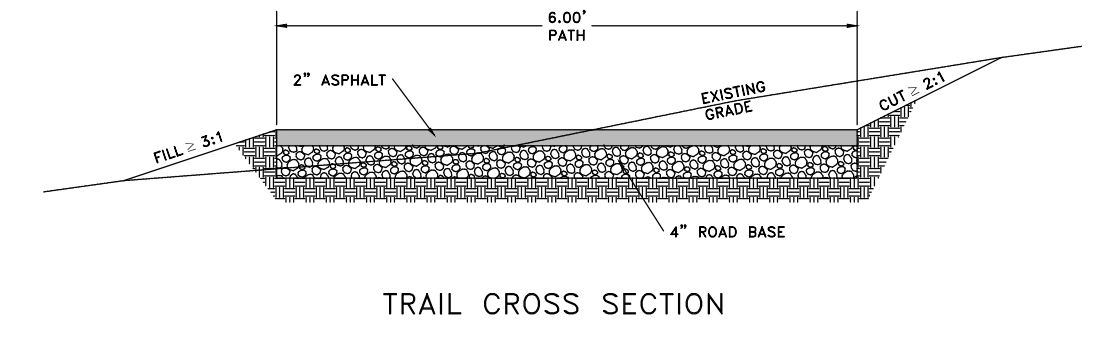
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4. THE STREET STRUCTURAL CROSS SECTION IS PER DETAILS CONTAINED WITHIN THESE PLANS.
5. THE SEPARATION BETWEEN THE CULINARY WATER AND SEWER SHALL BE 10' MIN.

**STANDARD 60' SUBDIVISION ROADWAY SECTION**

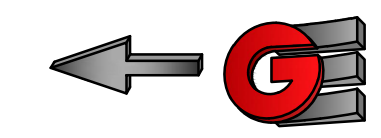


\*UTILITIES SHALL BE INSTALLED TO MEET WCWSID & COUNTY STANDARDS & SPECIFICATIONS.  
 \*ROAD CROSS SECTION SHALL BE INSTALLED TO COUNTY STANDARDS & SPECIFICATIONS.

NOTE:  
 PROVIDE 3/4" OR 1" UNTREATED BASE COURSE  
 6" THICKNESS UNDER ROLLED GUTTER  
 6" THICKNESS UNDER DRIVEWAY APPROACHES



TRAIL CROSS SECTION

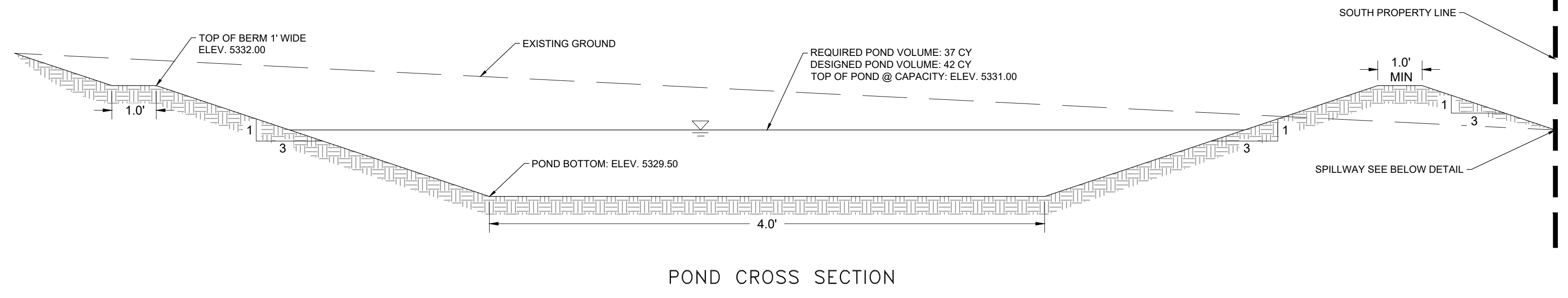
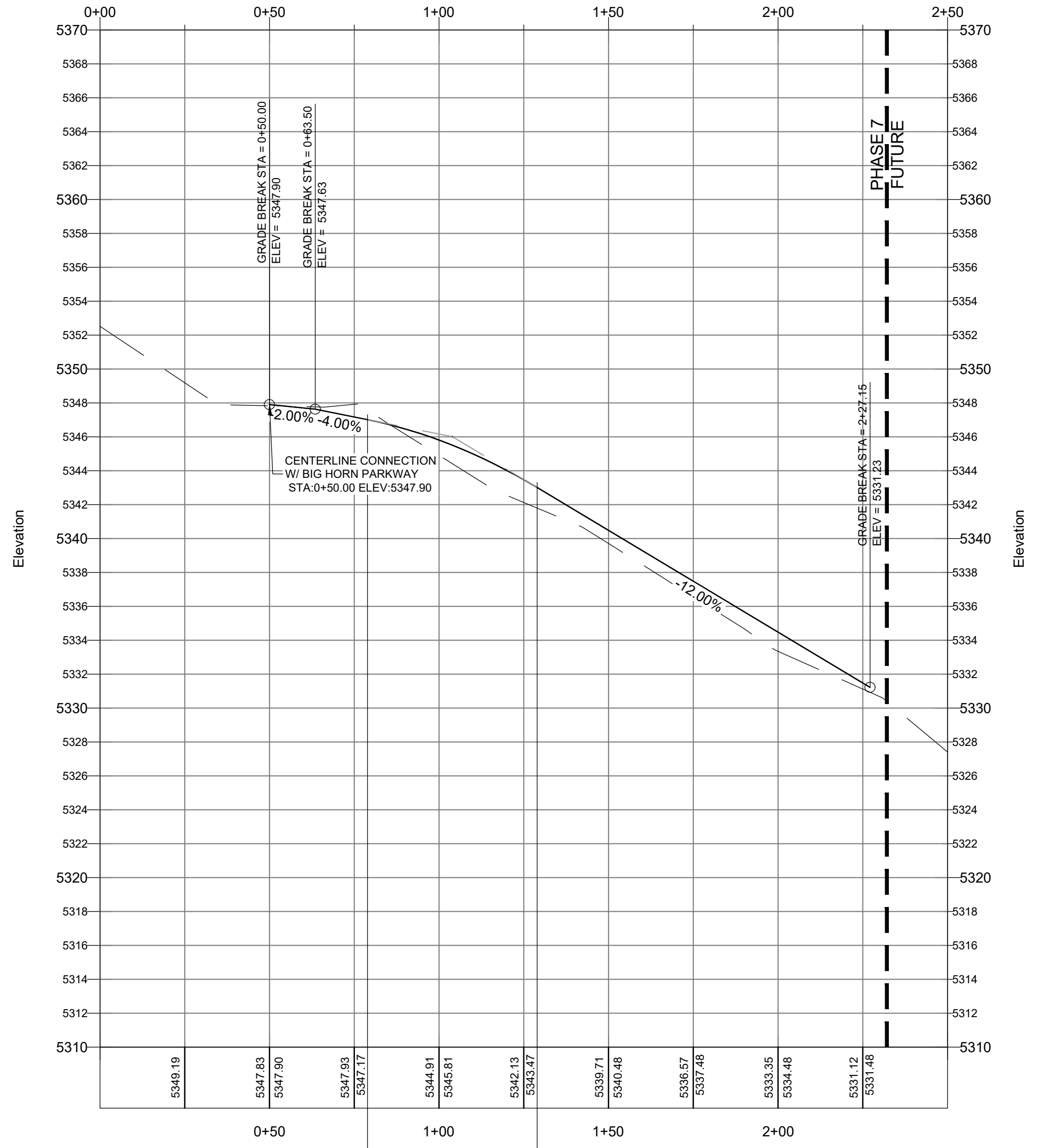


SCALE	1" = 30'
DATE	DEC 2017
DESIGN	C/P/PC
DRAWN	CJP
CHECKED	PC
REVISIONS	DESCRIPTION
DATE	PHASE 7A UPDATES
1/4/2019	
DWG: E:\WATER\ENTERPRISE\TRAPPERS RIDGE PHASE 7A\DESIGN\DWG\TRAPPERS PHASE 7A.DWG	

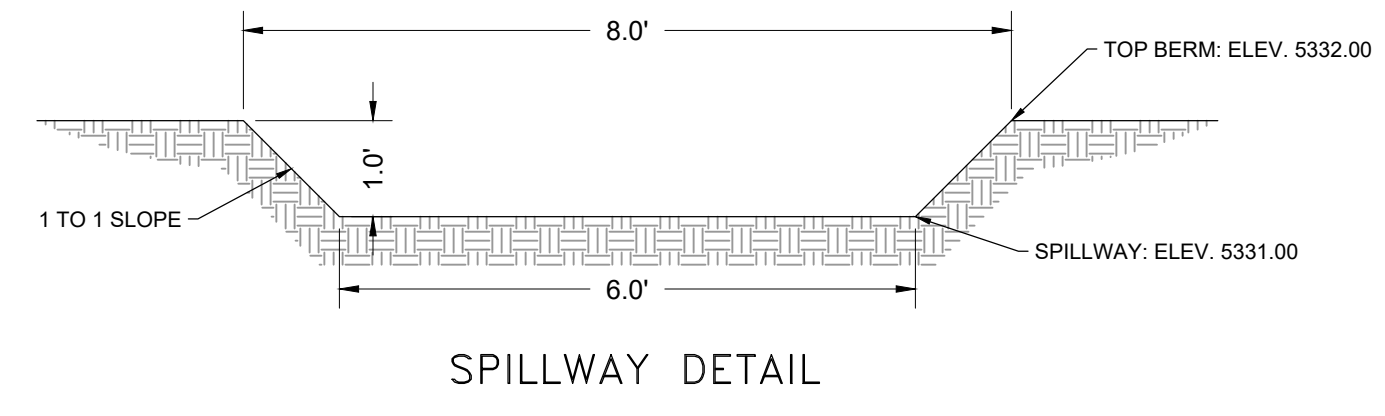


TELLURIDE ROAD PLAN AND PROFILE  
 TRAPPERS RIDGE PHASE 7  
 PHASE 7  
 EDEN, WEBER COUNTY, UTAH

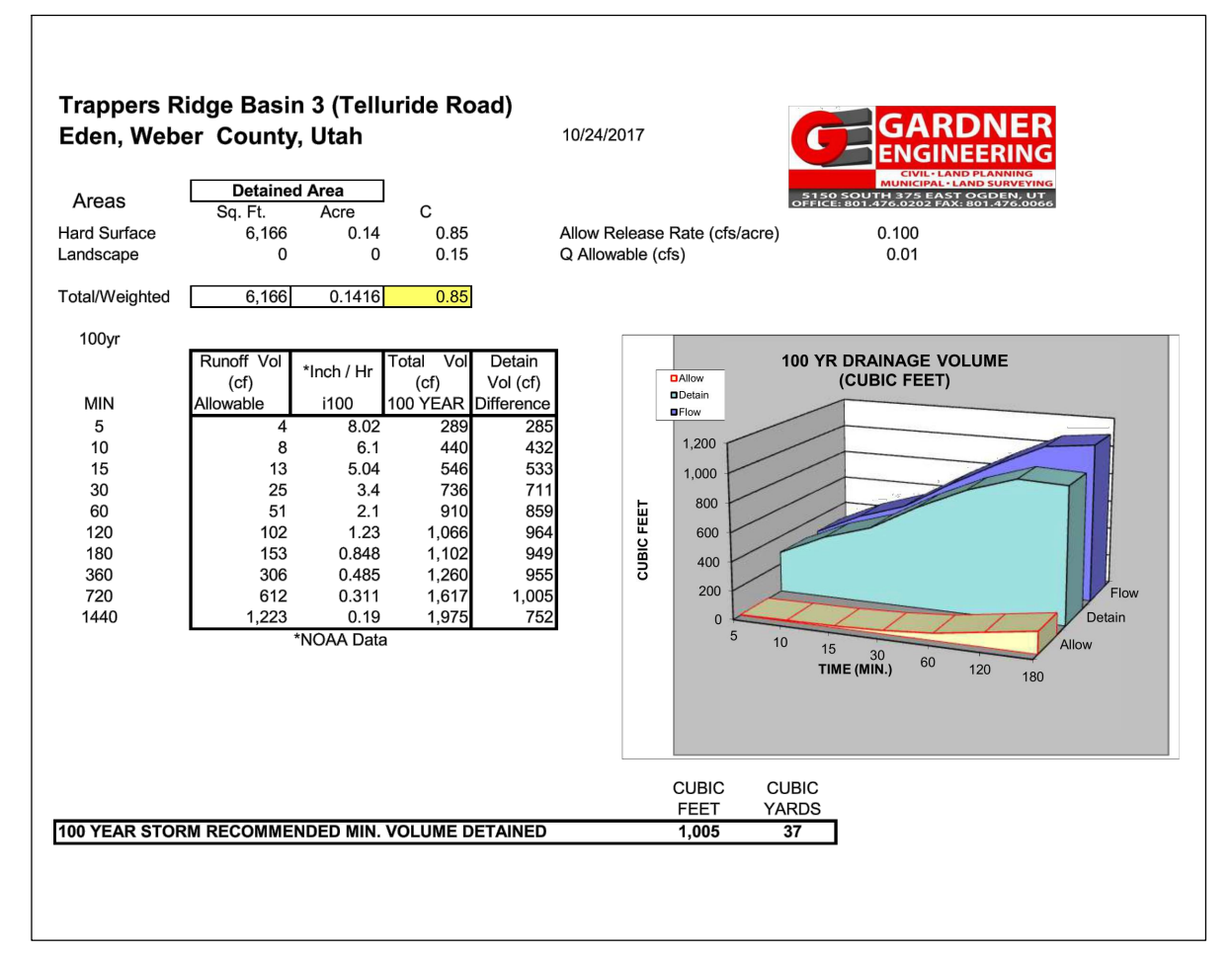
**TELLURIDE ROAD PROFILE**



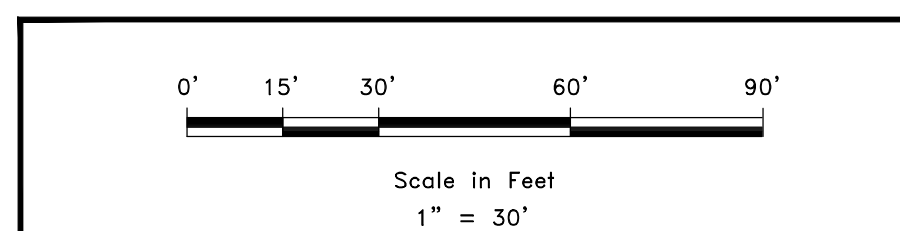
POND CROSS SECTION



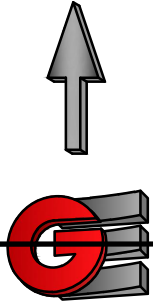
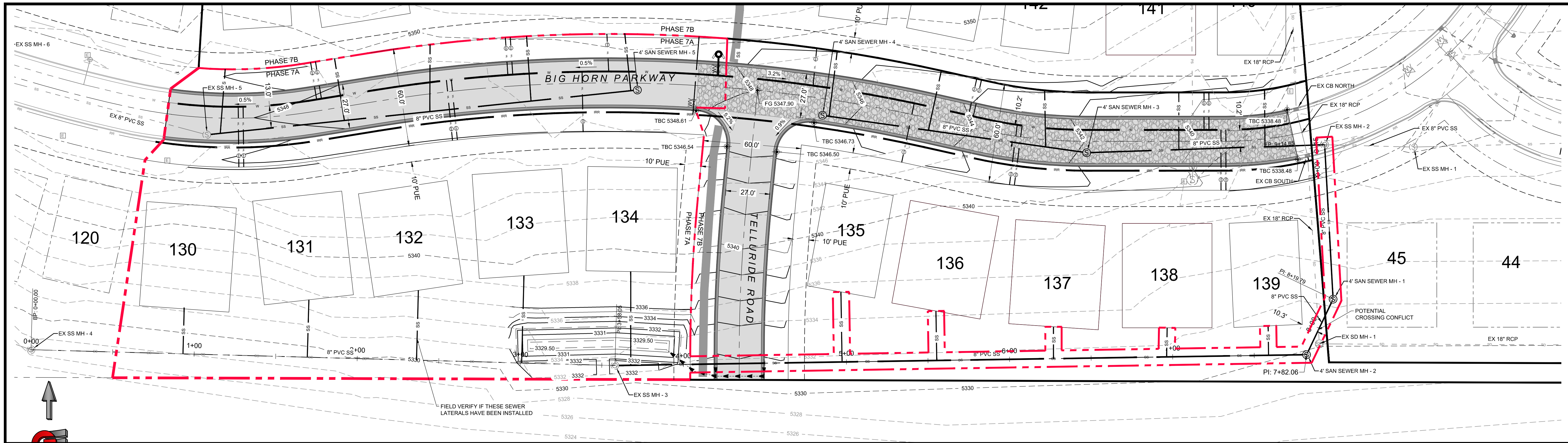
SPILLWAY DETAIL



STORM WATER CALCULATIONS FOR TELLURIDE ROAD

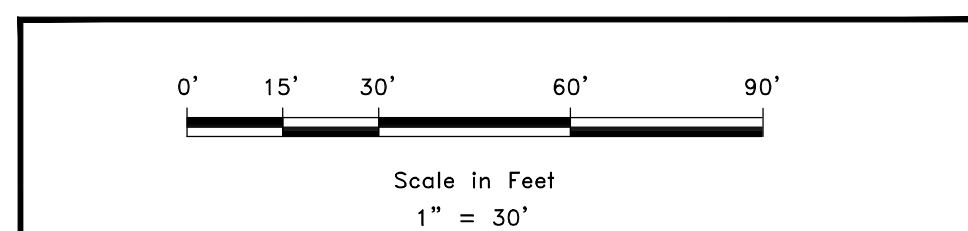
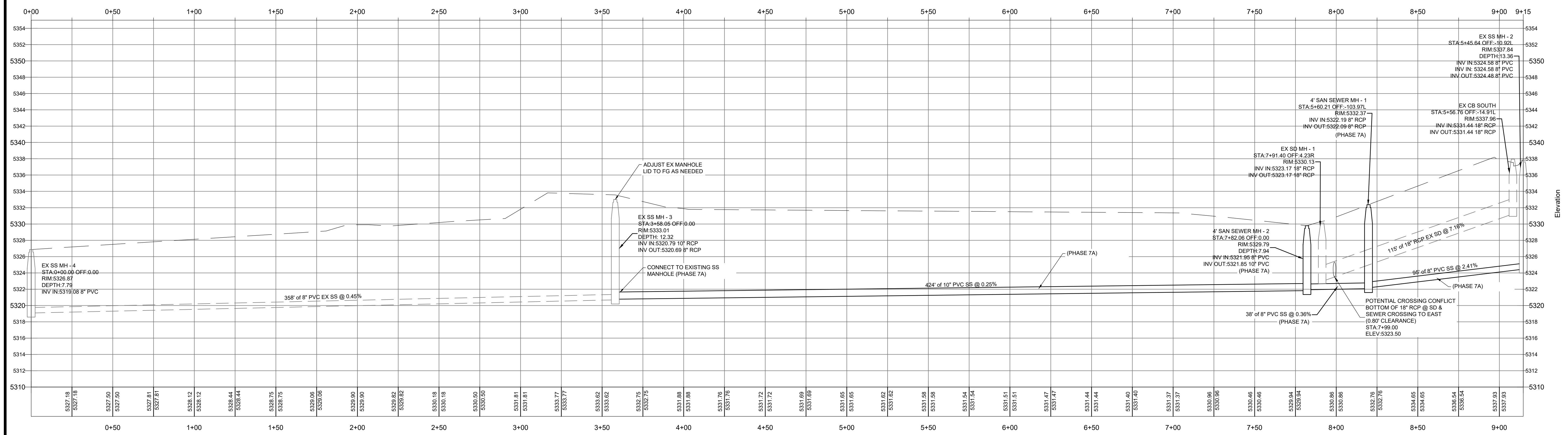


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 MUNICIPAL-LAND SURVEYING  
 5150 SOUTH 375 EAST OGDEN, UT  
 OFFICE: 801-476-0202 FAX: 801-476-0066



FIELD VERIFY IF THESE SEWER  
LATERALS HAVE BEEN INSTALLED

BACK LOT SEWER PROFILE



SCALE	1" = 30'
DATE	DEC 2017
DESIGN	C/P/PC
DRAWN	CJP
CHECKED	PC

REVISIONS

DATE	DESCRIPTION
1/4/2019	PHASE 7A UPDATES

REGISTERED PROFESSIONAL ENGINEER  
No. 8010280  
RYAN A. CHRISTENSEN  
STATE OF UTAH

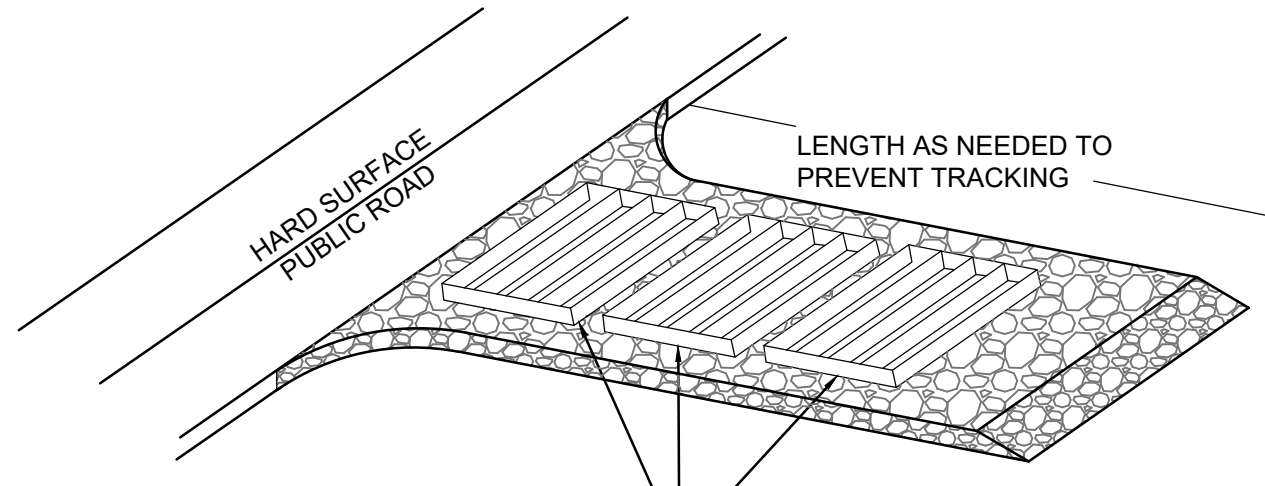
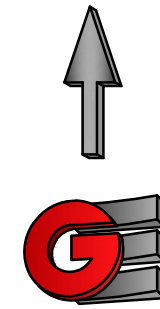
BACK LOT SEWER PLAN AND PROFILE  
TRAPPERS RIDGE PHASE 7  
PHASE 7  
EDEN, WEBER COUNTY, UTAH

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**EROSION CONTROL NOTES:**

1. SANDBAGS WILL BE PLACED AT DISCHARGE LOCATIONS TO CONTAIN AND DIVERT STORM WATER THROUGH THE INLET PROTECTION.
2. AN EARTHEN BERM 6" HIGH WILL BE CONSTRUCTED TO CONTAIN THE STORM WATER AND DIVERT IT TO DISCHARGE AREAS.
3. STORM WATER WILL BE DISCHARGED INTO AN EXISTING DRAINAGE SYSTEM. EXISTING LINES SHALL BE INSPECTED PRIOR TO CERTIFICATE OF OCCUPANCY AND CLEANED IF NECESSARY.
4. THE STORM WATER POLLUTION PREVENTION PLAN SHALL CONFORM TO ALL STATE DIVISION OF ENVIRONMENTAL PROTECTION REGULATIONS.



A SERIES OF STEEL PLATES (3 OR MORE) WITH RUMBLE STRIPS OR MIN. 3" COARSE AGGREGATE.

**ENTRANCE STABILIZATION NOTES:**

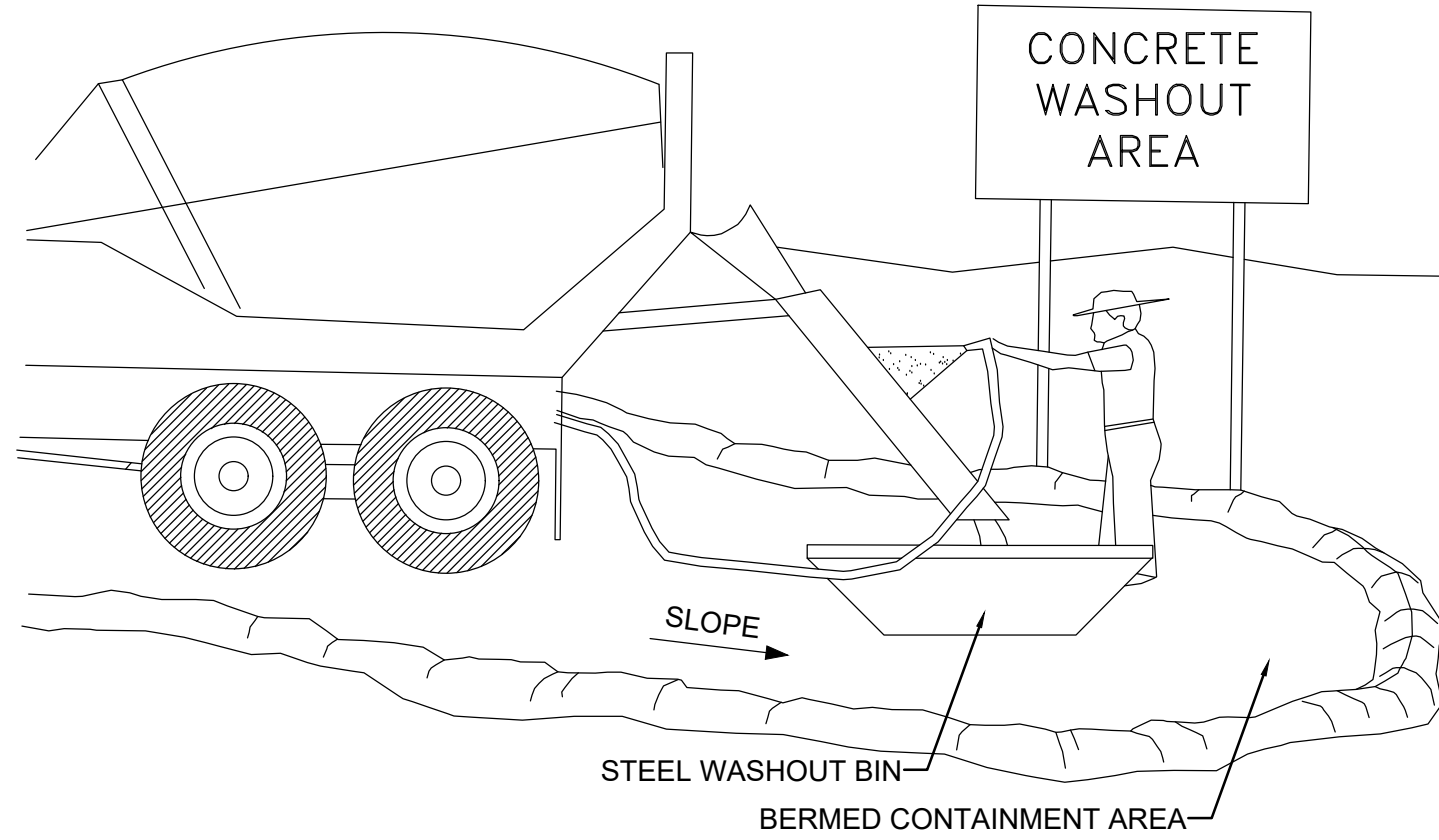
1. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED INTO THE STORM DRAIN SYSTEMS. DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE:
  - a. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT-OF-WAY, STREET, ALLEY AND SIDEWALK OR PARKING AREA.
  - b. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS", AND/OR MIN. 3" COARSE AGGREGATE WITH LENGTH, WIDTH AND THICKNESS AS NEEDED TO ADEQUATELY PREVENT ANY TRACKING ONTO PAVED SURFACES.
3. ADDING A WASH RACK WITH A SEDIMENT TRAP LARGE ENOUGH TO COLLECT ALL WASH WATER CAN GREATLY IMPROVE EFFICIENCY.
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE SITES.

**STREET MAINTENANCE NOTES:**

1. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
2. SWEEP PAVED AREAS THAT RECEIVE CONSTRUCTION TRAFFIC WHENEVER SEDIMENT BECOMES VISIBLE.
3. PAVEMENT WASHING WITH WATER IS PROHIBITED IF IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM.

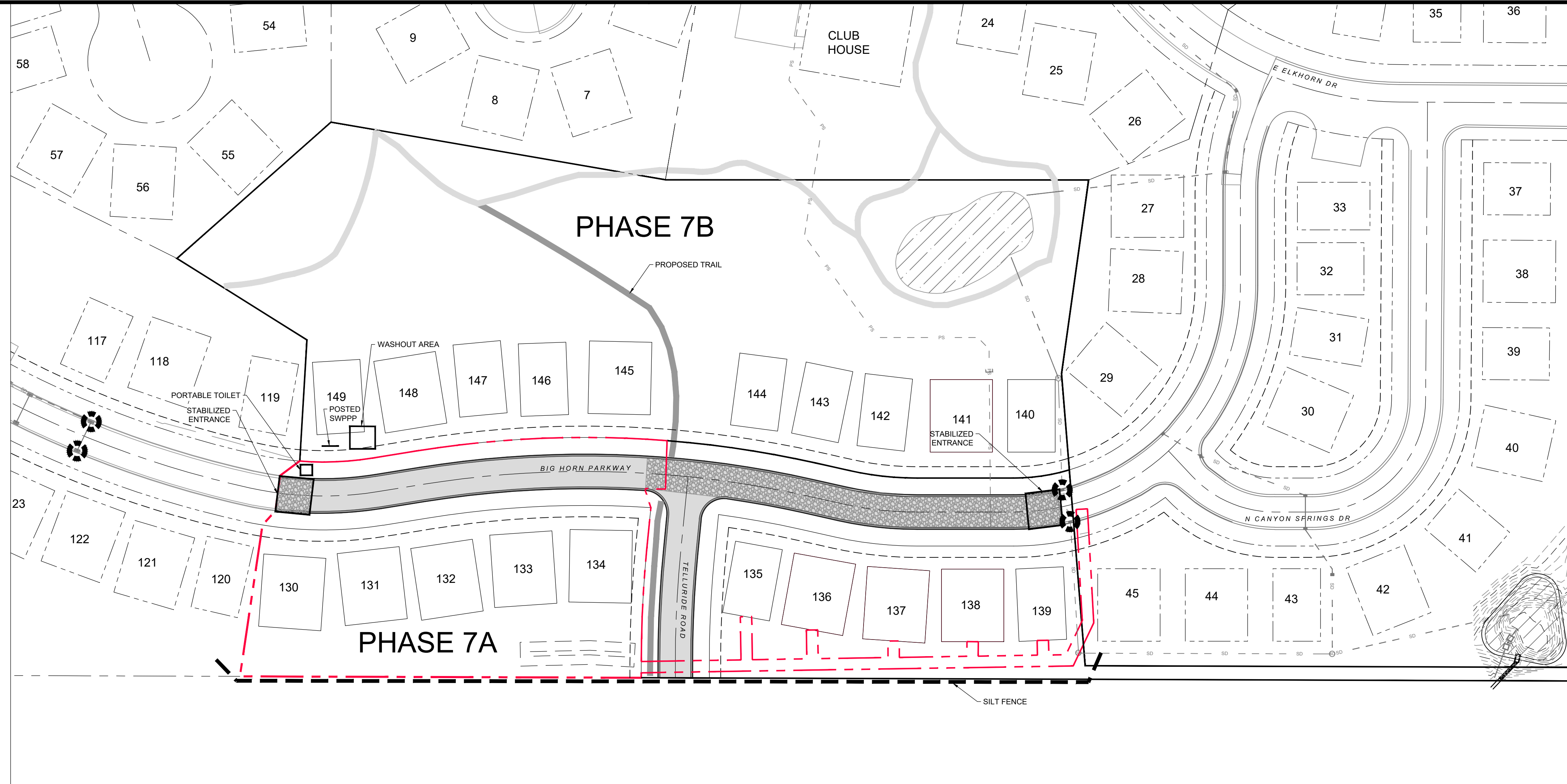
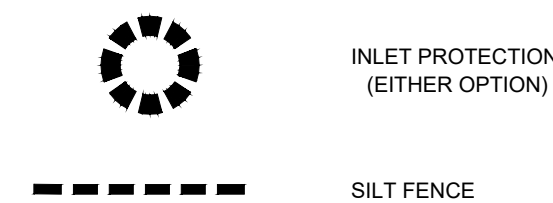
**NOTE:**

CONTRACTOR SHALL COMPLETE AND SUBMIT A STATE NOTICE OF INTENT (NOI) AND A STORM WATER POLLUTION PREVENTION PLAN BOOKLET.



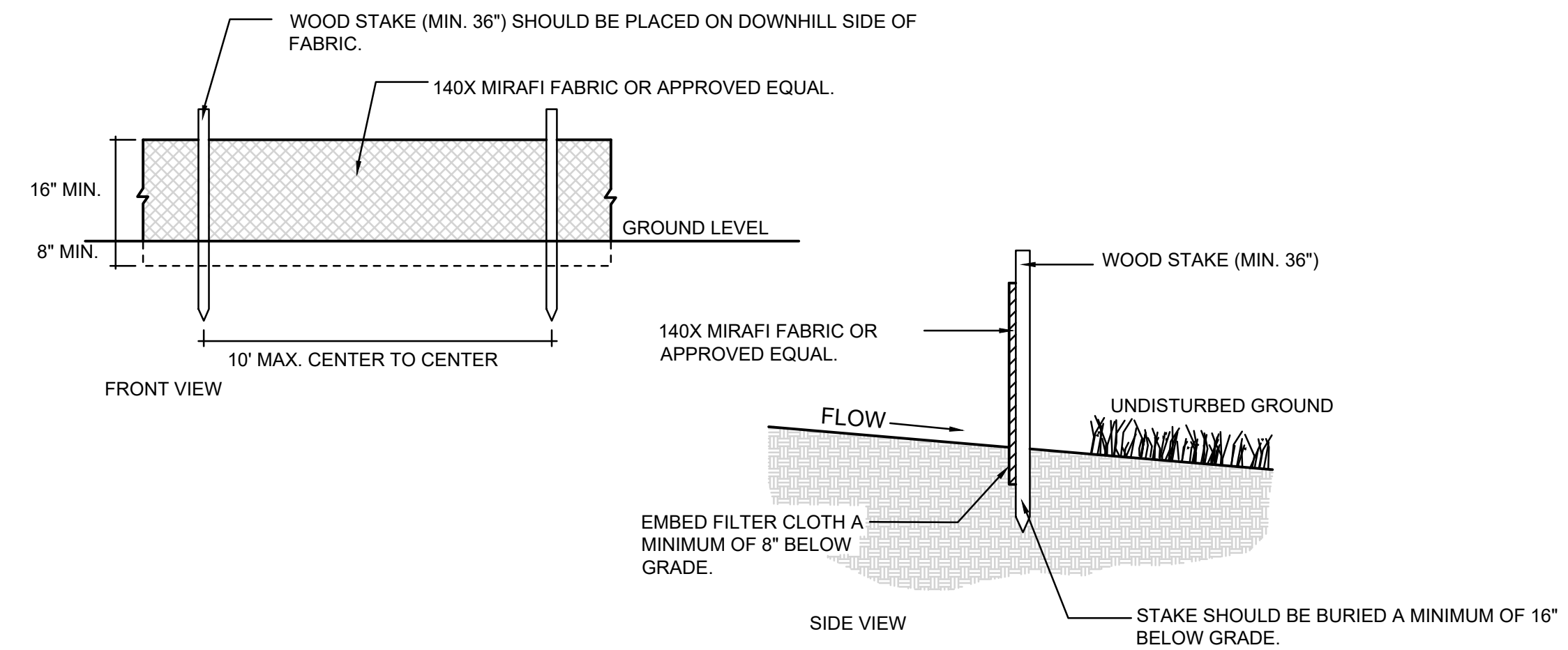
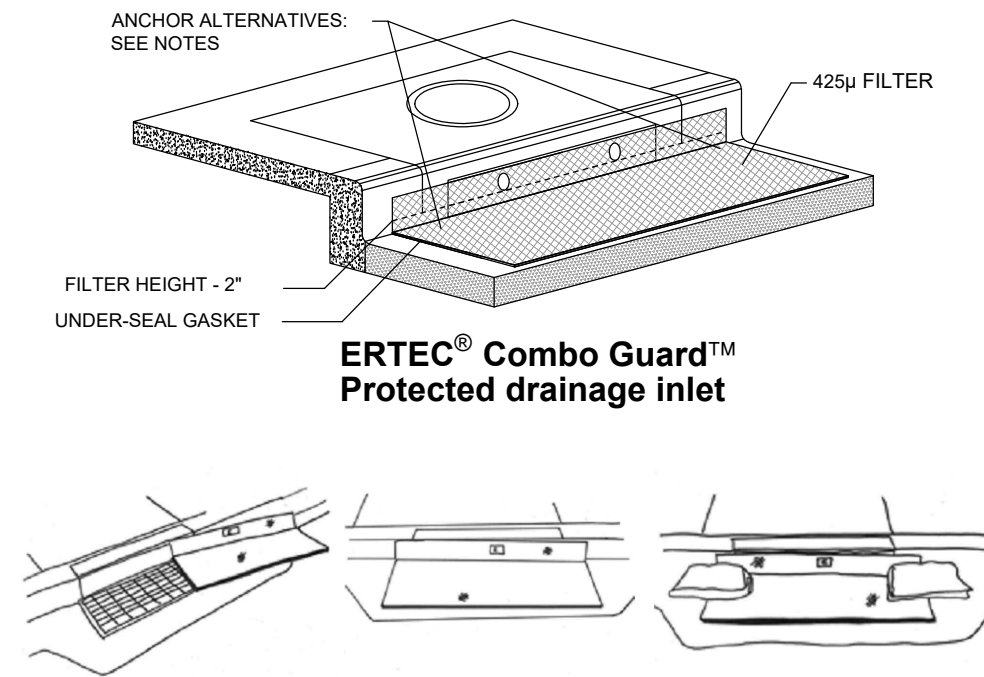
**NOTES:**

1. EXCESS AND WASTE CONCRETE SHALL BE DISPOSED OF OFF SITE OR AT DESIGNATED AREAS ONLY.
2. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.
3. FOR WASHOUT OF CONCRETE AND MORTAR PRODUCTS ONSITE, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND SOLID WASTE SHALL BE PROVIDED.
4. ONSITE CONCRETE WASHOUT CONTAINMENT FACILITY SHALL BE A STEEL BIN OR APPROVED ALTERNATE.
5. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP AND DISPOSED OF PROPERLY.



**INSTALLATION NOTES**

1. PLACEMENT: PLACE CG TIGHTLY AGAINST CURB OPENING AND COVER ENTIRE GRATE. CG SHOULD EXTEND AT LEAST 2 INCHES PAST GRATE TOWARDS STREET.
2. OVERLAP FOR LONG OPENINGS: OVERLAP CG UNITS AT LONGER OPENINGS.
3. ANCHOR: ANCHOR CG SO THAT WATER CANNOT FLOW BEHIND IT.
4. ALTERNATE ANCHOR METHODS: A) INSTALL GRAVEL BAGS AT EACH SIDE OF CG - HALF-ON AND HALF-OFF THE EDGES. USE HALF-FILLED GRAVEL BAGS (15 OR 20 LBS), ROUND ROCK IS RECOMMENDED. OR B) ATTACH WITH 16 GAUGE TIE-WIRE. CUT WIRE TO 18 INCHES LENGTH. AT EACH CORNER OF CG, FEED ONE END OF WIRE DOWN THROUGH CG, AROUND GRATE BAR, AND BACK UP THRU CG. ABOVE GROUND, TWIST WIRES SEVERAL TIMES. CUT-OFF EXCESS. OR C) FASTEN WITH CONCRETE ANCHORS/NAILS AT THE OUTSIDE EDGES OF CG.

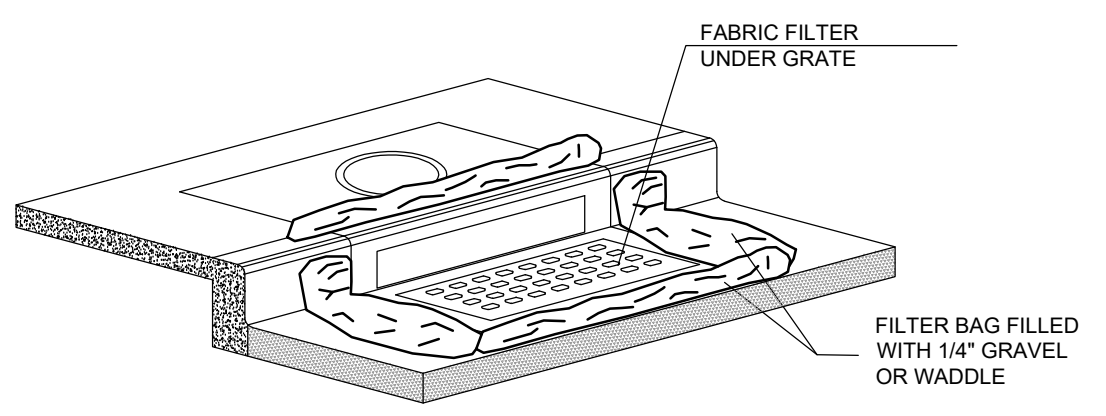


1A INLET PROTECTION - OPTION 1

Scale: NTS

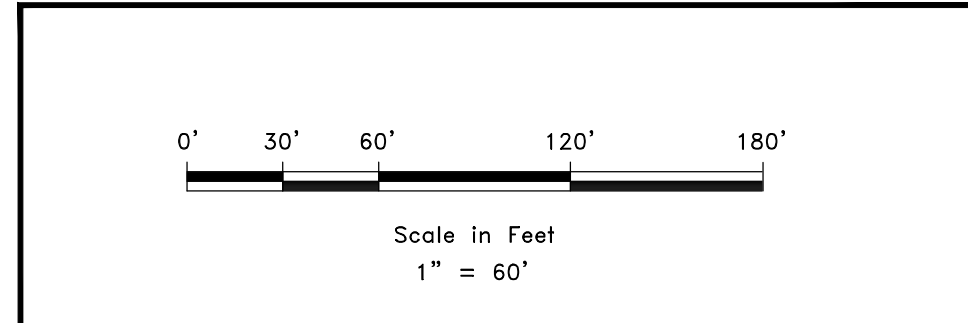
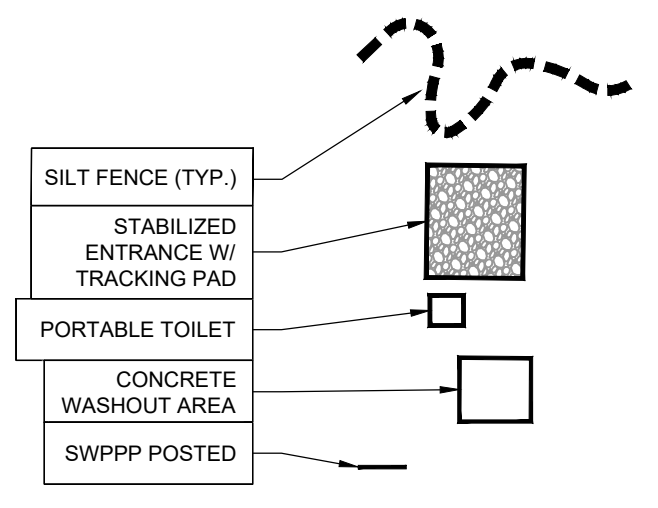
2 SILT FENCE

Scale: NTS

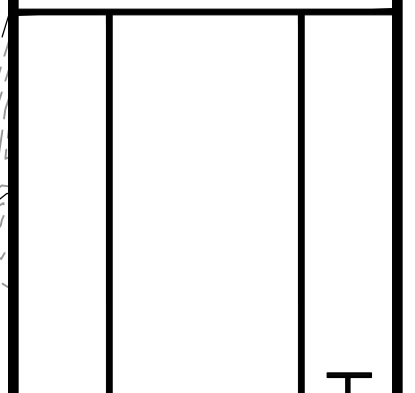


1B INLET PROTECTION - OPTION 2

Scale: NTS



SCALE: 1" = 60'	DATE: DEC 2017	DESIGN: CJP/PC	DRAWN: CJP	CHECKED: PC
REVISIONS	DESCRIPTION			
DATE: 1/4/2019	PHASE 7A UPDATES			
DWG: SA-WATEL ENTERPRISES/TRAPPERS RIDGE PHASE 7 DESIGN/PC				



SWPPP  
TRAPPERS RIDGE PHASE 7  
PHASE 7  
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