

**Project Narrative/Notes/Revisions**

- 2023/03/15 NF - COMPLETED DESIGN FOR CLIENT & CITY REVIEW.
- 2023/06/06 NF - REVISED PER BONA VISTA COMMENTS.
- 2023/06/28 NF - REVISED PER J-U-B COMMENTS.
- 2023/09/20 NF - REVISED LOT NUMBERING.

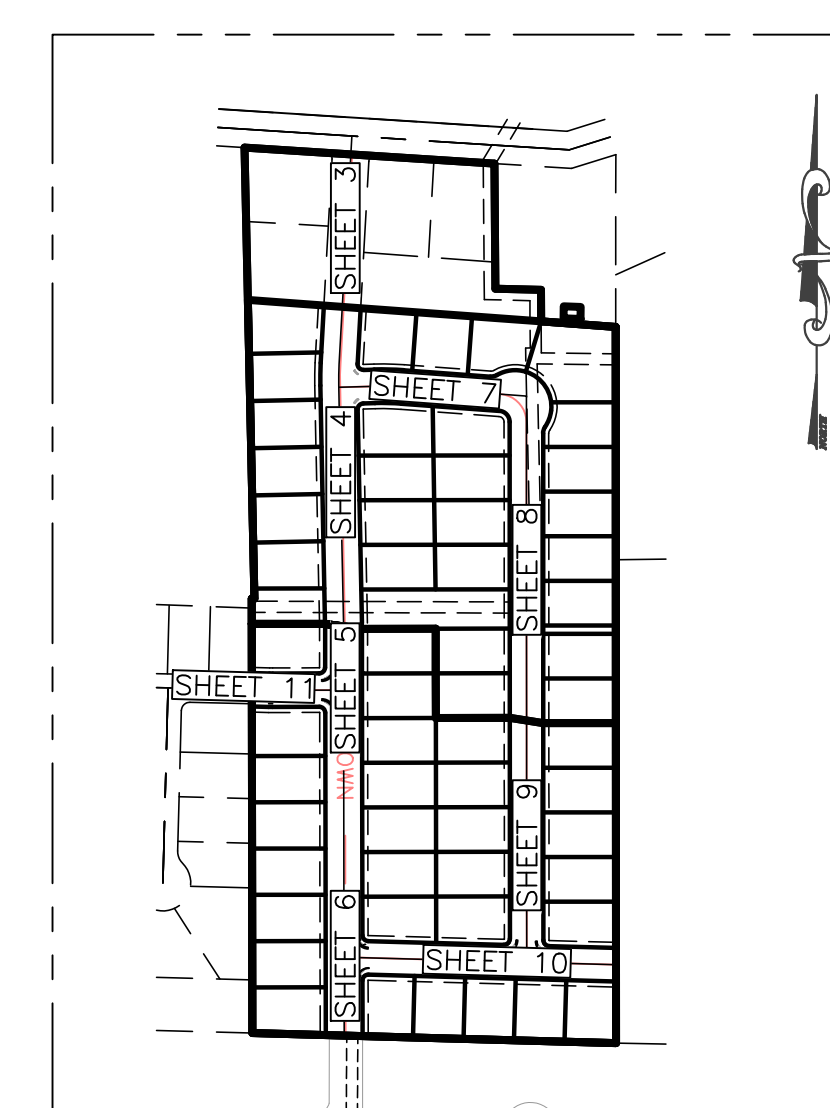
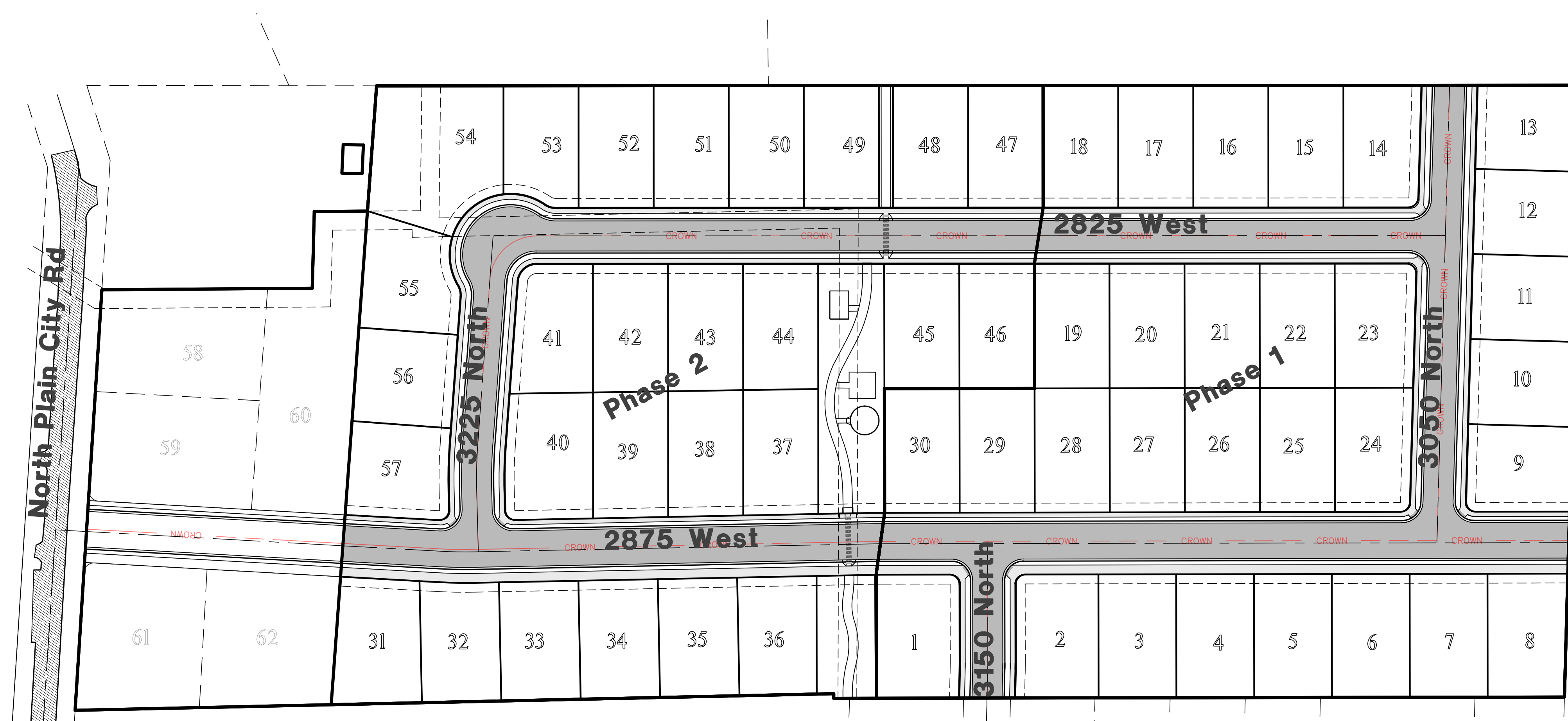
# THE GROVE at JDC RANCH SUBDIVISION

## Improvement Plan - Phase 1 & 2

WEBER COUNTY, UTAH  
MARCH, 2023



**Vicinity Map**  
NOT TO SCALE



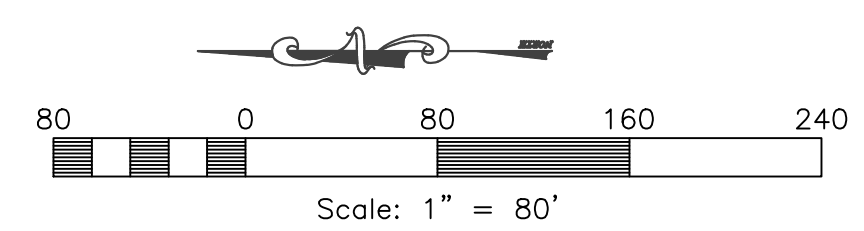
**Sheet Index Key Map**  
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**Sheet Index**

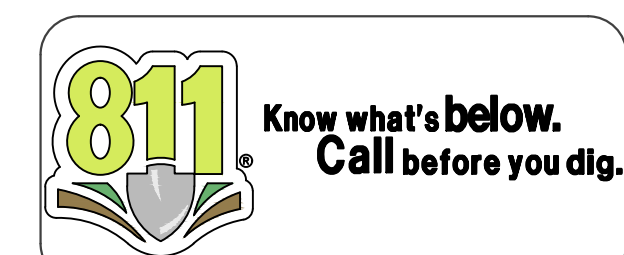
- Sheet 1 - Cover/Index Sheet
- Sheet 2 - Notes/Legend
- Sheet 3 - 2875 West 0+00.00 - 4+50.00
- Sheet 4 - 2875 West 4+50.00 - 9+30.00
- Sheet 5 - 2875 West 9+30.00 - 14+10.00
- Sheet 6 - 2875 West 14+10.00 - 16+25.35
- Sheet 7 - 3225 North 0+00.00 - 4+50.00
- Sheet 8 - 2825 West 4+50.00 - 9+30.00
- Sheet 9 - 2825 West 9+30.00 - 14+00.00
- Sheet 10 - 3050 North 00+00.00 - 4+50.00
- Sheet 11 - 3150 North Street 1+00.00 - 3+68.29
- Sheet 12 - Grading Plan
- Sheet 12.1 - Area Drainage Plan
- Sheet 13 - Utility Plan
- Sheet 14 - Sewer Outfall
- Sheet 15 - Sewer & Land Drain Cross Sections
- Sheet 16 - Detail
- Sheet 17 - Storm Water Pollution Prevention Plan Exhibit
- Sheet 18 - Storm Water Pollution Prevention Plan Details
- Sheet 19 - Landscape Plan

These plans have been completed and stamped by Reeve & Associates Engineering in accordance with review memorandum from the Weber County Engineering office, and comments from the pre-construction meeting. In the pre-construction meeting held with the County on 6/26/2023, County officials indicated that they do not stamp plans for construction. An email was received from Tucker Weight of the Weber County Engineers office on 6/28/23, indicating they need the SWPPP and Kapp's certificate of Insurance. One full size set of these drawings and a digital copy. It is presumed from this request that these drawings are approved for construction.

10/9/23 -- Plans were modified by Reeve & Associates Engineering on 10/9/23, to include changes to the SS system resultant from the mainline being raised above the BOR drain line between SSMH15 & SSMH16, and addition of a beaver slide type drop manhole between these two manholes. Reeve is analyzing the other utilities, but it is anticipated that these plans will be final. However, changes may occur of conflicts with other utilities are insurmountable with the current design.



**Notice:**  
THESE PLANS WERE CREATED UTILIZING COLORS FOR UTILITIES & OTHER INFRASTRUCTURE. IF PRINTED IN, OR COPIED TO BLACK & WHITE, SOME LINE WORK MAY NOT SHOW UP PROPERLY.



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**Engineer's Notice To Contractors:**  
THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE INFORMATION PROVIDED BY OTHERS. THE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO CONTACT THE UTILITY COMPANIES AND TAKE DUE PRECAUTIONARY MEASURE TO PROTECT ANY UTILITY LINES SHOWN, AND ANY OTHER LINES OBTAINED BY THE CONTRACTOR'S RESEARCH, AND OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

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**RA**

LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS  
TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DATE	DESCRIPTION
06.28.23	NF	J-U-B Comments
09.20.23	NF	Lot Numbers

**The Grove at JDC Ranch Subdivision**  
**Phase 1 & 2**  
WEBER COUNTY, UTAH

**Cover/Index Sheet**



**Project Info.**  
Engineer: J. NATE REEVE, P.E.  
Drafted: N. FICKLIN  
Begin Date: MARCH 2022  
Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
Number: 7152-14

### General Notes:

- ALL CONSTRUCTION MUST STRICTLY FOLLOW THE STANDARDS AND SPECIFICATIONS SET FORTH BY: GOVERNING UTILITY MUNICIPALITY, GOVERNING CITY OR COUNTY (IF UNINCORPORATED), INDIVIDUAL PRODUCT MANUFACTURERS, AMERICAN PUBLIC WORKS ASSOCIATION (APWA), AND THE DESIGN ENGINEER. THE ORDER LISTED ABOVE IS ARRANGED BY SENIORITY. IF A CONSTRUCTION PRACTICE IS NOT SPECIFIED BY ANY OF THE LISTED SOURCES, CONTRACTOR MUST CONTACT DESIGN ENGINEER FOR DIRECTION.
- CONTRACTOR TO STRICTLY FOLLOW THE RECOMMENDATIONS FOR THIS INCLUDING BUT NOT LIMITED TO CUT, FILL, COMPACTION, ASPHALT SECTION, SUBBASE, TRENCH EXCAVATION/BACKFILL, SITE GRUBBING, RETAINING WALLS AND FOOTINGS MUST BE COORDINATED DIRECTLY WITH THE PROJECT GEOTECHNICAL ENGINEER.
- TRAFFIC CONTROL, STRIPING & SIGNAGE TO CONFORM TO CURRENT GOVERNING AGENCIES TRANSPORTATION ENGINEER'S MANUAL AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
- CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS BEFORE COMMENCING CONSTRUCTION.
- AT ALL LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING PAVEMENT SHALL BE SAWCUT TO A CLEAN, SMOOTH EDGE.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST RECENT, ADOPTED EDITION OF ADA ACCESSIBILITY GUIDELINES.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED THOROUGHLY REVIEWED PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND NOTIFYING ENGINEER OR INSPECTING AUTHORITY 48 HOURS IN ADVANCE OF COVERING UP ANY PHASE OF CONSTRUCTION REQUIRING OBSERVATION.
- ANY WORK IN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE PERMITS FROM THE APPROPRIATE CITY, COUNTY OR STATE AGENCY CONTROLLING THE ROAD, INCLUDING OBTAINING REQUIRED INSPECTIONS.
- ALL DIMENSIONS, GRADES & UTILITY DESIGNS SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES.
- CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING AND BRING UP ANY QUESTIONS BEFOREHAND.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH BY THE GEOTECHNICAL ENGINEER.
- CATCH SLOPES SHALL BE GRADED AS SPECIFIED ON GRADING PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FLAGGING, CAUTION SIGNS, LIGHTS, BARRICADES, FLAGMEN, AND ALL OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
- CONTRACTOR SHALL BE AT THE TIME OF BIDDING AND THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE BONDABLE FOR AN AMOUNT EQUAL TO OR GREATER THAN THE AMOUNT BID AND TO DO THE TYPE OF WORK CONTEMPLATED IN THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL INSPECT THE SITE OF THE WORK PRIOR TO BIDDING TO SATISFY HIMSELF BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS HE MAY PREFER OF THE LOCATIONS OF THE PROPOSED WORK AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK. IF, DURING THE COURSE OF HIS EXAMINATION, A BIDDER FINDS FACTS OR CONDITIONS WHICH APPEAR TO HIM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, HE SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING HIS BID. SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, HE HAS RELIED AND IS RELYING ON HIS OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON HIS OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT. THE INFORMATION PROVIDED BY THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT HE HAS NOT RELIED SOLELY UPON OWNER - OR ENGINEER-FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING HIS BID.
- CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONSTRUCTION OF THE WORK DURING CONSTRUCTION.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER, ENGINEER, AND/OR GOVERNING AGENCIES.
- CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.
- CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND 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 THE ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR RE-INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.
- EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT. THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.
- WHenever existing facilities are removed, damaged, broken, or cut in the installation of the work covered by these plans or specifications, said facilities shall be replaced at the contractor's expense with materials equal to or better than the materials used in the original existing facilities. The finished product shall be subject to the approval of the owner, the engineer, and the respective regulatory agency.
- CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL STRUCTURES AND OTHER FACILITIES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED, WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INSTALLED WORK. THE INSTALLED WORK SHALL HAVE SPECIAL SKILLS IN THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN PECULIAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO THE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE GRINDING OR SANDBLASTING.
- CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4 FEET OR MORE. FOR EXCAVATIONS 4 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL COMPLY WITH LOCAL, STATE AND NATIONAL SAFETY CODES, ORDINANCES, OR REQUIREMENTS FOR EXCAVATION AND TRENCHES.
- ALL EXISTING GATES AND FENCES TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL GATES AND FENCES FROM DAMAGE.

### Utility Notes:

- CONTRACTOR SHALL COORDINATE LOCATION OF NEW "DRY UTILITIES" WITH THE APPROPRIATE UTILITY COMPANY, INCLUDING BUT NOT LIMITED TO: TELEPHONE SERVICE, GAS SERVICE, CABLE, POWER, INTERNET.
- EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING A COMBINATION OF ON-SITE SURVEYS (BY OTHERS). PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE IN THE FIELD, THEIR MAIN AND SERVICE LINES 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.
- CONTRACTOR SHALL POT HOLE ALL UTILITIES TO DETERMINE IF CONFLICTS EXIST PRIOR TO BEGINNING ANY EXCAVATION. NOTIFY ENGINEER OF ANY CONFLICTS. CONTRACTOR SHALL VERIFY LOCATION AND INVERTS OF EXISTING UTILITIES TO WHICH NEW UTILITIES WILL BE CONNECTED. PRIOR TO COMMENCING ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE REQUIRED PROCEDURES.
- CARE SHOULD BE TAKEN IN ALL EXCAVATIONS DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES. EXCAVATION REQUIRED WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT HIS EXPENSE.
- ALL VALVES AND MANHOLE COVERS SHALL BE RAISED OR LOWERED TO MEET FINISHED GRADE.
- CONTRACTOR SHALL CUT PIPES OFF FLUSH WITH THE INSIDE WALL OF THE BOX OR MANHOLE.
- CONTRACTOR SHALL GROUT AT CONNECTION OF PIPE TO BOX WITH NON-SHRINKING GROUT, INCLUDING PIPE VOIDS LEFT BY CUTTING PROCESS, TO A SMOOTH FINISH.
- CONTRACTOR SHALL GROUT WITH NON-SHRINK GROUT BETWEEN GRADE RINGS AND BETWEEN BOTTOM OF INLET LID FRAME AND TOP OF CONCRETE BOX.
- SILT AND DEBRIS IS TO BE CLEANED OUT OF ALL STORM DRAIN BOXES. CATCH BASINS ARE TO BE MAINTAINED IN A CLEANED CONDITION AS NEEDED UNTIL AFTER THE FINAL BOND RELEASE INSPECTION.
- CONTRACTOR SHALL CLEAN ASPHALT, TAR OR OTHER ADHESIVES OFF OF ALL MANHOLE LIDS AND INLET GRATES TO ALLOW ACCESS.
- EACH TRENCH SHALL BE EXCAVATED SO THAT THE PIPE CAN BE LAID TO THE ALIGNMENT AND GRADE AS REQUIRED. THE TRENCH WALL SHALL BE SO BRACED THAT THE WORKMEN MAY WORK SAFELY AND EFFICIENTLY. ALL TRENCHES SHALL BE DRAINED SO THE PIPE LAYING MAY TAKE PLACE IN DE-WATERED CONDITIONS.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES AMPLE MEANS AND DEVICES WITH WHICH TO REMOVE PROMPTLY AND TO PROPERLY DISPOSE OF ALL WATER ENTERING THE TRENCH EXCAVATION.
- MAINTAIN A MINIMUM 18" VERTICAL SEPARATION DISTANCE BETWEEN ALL UTILITY CROSSINGS.
- CONTRACTOR SHALL START INSTALLATION AT LOW POINT OF ALL NEW GRAVITY UTILITY LINES.
- ALL BOLTED FITTINGS MUST BE GREASED AND WRAPPED.
- UNLESS SPECIFICALLY NOTED OTHERWISE, MAINTAIN AT LEAST 2 FEET OF COVER OVER ALL STORM DRAIN LINES AT ALL TIMES (INCLUDING DURING CONSTRUCTION).
- ALL WATER LINES SHALL BE INSTALLED A MINIMUM OF 48" BELOW FINISHED GRADE.
- ALL CULINARY WATER TO BE INSTALLED PER BONA VISTA STANDARDS.
- ALL SEWER LINES AND SEWER SERVICES SHALL HAVE A MINIMUM SEPARATION OF 10 FEET, PIPE EDGE TO PIPE EDGE, FROM THE WATER LINES. IF A 10 FOOT SEPARATION CAN NOT BE MAINTAINED, THE SEWER LINE AND WATER LINE SHALL BE LAID IN SEPARATE TRENCHES AND THE BOTTOM OF THE WATER LINE SHALL BE AT LEAST 18" ABOVE THE TOP OF THE SEWER LINE.
- CONTRACTOR SHALL INSTALL THRUST BLOCKING AT ALL WATERLINE ANGLE POINTS AND TEES.
- ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK AND STREET PAVING.
- CONTRACTOR SHALL INSTALL MAGNETIC LOCATING TAPE CONTINUOUSLY OVER ALL NONMETALLIC PIPE.
- THRUST BLOCKS & RESTRAINED JOINTS WITH MEGA-LUG ADAPTERS REQUIRED ON ALL BENDS AND FITTINGS USING BLUE BOLTS. PROTECT ALL BOLTS FROM BEING ENCASED IN CONCRETE. INSTALL PER MANUFACTURER RECOMMENDATIONS.

### Notice to Contractor:

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

THE CONTRACTOR AGREES THAT THEY 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. 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 ENGINEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

- NOTE:
- SAWCUT EXISTING ASPHALT INSIDE FROM OUTER EDGE FOR TACK SEAL OF NEW ASPHALT
  - CONTRACTOR TO VERIFY 2% MIN. AND 5% MAX SLOPE FROM EDGE OF ASPHALT TO LIP OF GUTTER

### Survey Control Note:

THE CONTRACTOR OR SURVEYOR SHALL BE RESPONSIBLE FOR FOLLOWING THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS) MODEL STANDARDS FOR ANY SURVEYING OR CONSTRUCTION LAYOUT TO BE COMPLETED USING REEVE & ASSOCIATES, INC. SURVEY DATA OR CONSTRUCTION IMPROVEMENT PLANS. PRIOR TO PROCEEDING WITH CONSTRUCTION STAKING, THE SURVEYOR SHALL BE RESPONSIBLE FOR VERIFYING HORIZONTAL CONTROL FROM THE SURVEY MONUMENTS AND FOR VERIFYING ANY ADDITIONAL CONTROL POINTS SHOWN ON AN ALTA SURVEY. IMPROVEMENT PLAN, OR ANY ELECTRONIC DATA PROVIDED, THE SURVEYOR SHALL ALSO USE THE BENCHMARKS AS SHOWN ON THE PLAN, AND VERIFY THEM AGAINST NO LESS THAN FIVE (5) EXISTING HARD IMPROVEMENT ELEVATIONS INCLUDED ON THESE PLANS OR ON ELECTRONIC DATA PROVIDED, IF ANY DISCREPANCIES ARE ENCOUNTERED, THE SURVEYOR SHALL IMMEDIATELY NOTIFY REEVE & ASSOCIATES, INC. AND RESOLVE THE DISCREPANCIES BEFORE PROCEEDING WITH ANY CONSTRUCTION STAKING.

### Erosion Control General Notes:

THE CONTRACTOR TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL OF THIS PROJECT. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO GOVERNING AGENCIES ORDINANCES AND ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE COUNTIES. ALSO, INSPECTORS WILL HAVE THE RIGHT TO CHANGE THE FACILITIES AS NEEDED.

CONTRACTOR SHALL KEEP THE SITE WATERED TO CONTROL DUST. CONTRACTOR TO LOCATE A NEARBY HYDRANT FOR USE AND TO INSTALL TEMPORARY METER. CONSTRUCTION WATER COST TO BE INCLUDED IN BID.

WHEN GRADING OPERATIONS ARE COMPLETED AND THE DISTURBED GROUND IS LEFT OPEN FOR 14 DAYS OR MORE, THE AREA SHALL BE FURROWED PARALLEL TO THE CONTOURS.

THE CONTRACTOR SHALL MODIFY EROSION CONTROL MEASURES TO ACCOMMODATE PROJECT PLANNING.

ALL ACCESS TO PROPERTY WILL BE FROM PUBLIC RIGHT-OF-WAYS. THE CONTRACTOR IS REQUIRED BY STATE AND FEDERAL REGULATIONS TO PREPARE A STORM WATER POLLUTION PREVENTION PLAN AND FILE A "NOTICE OF INTENT" WITH THE GOVERNING AGENCIES.

### Maintenance:

ALL BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THIS PLAN MUST BE MAINTAINED AT ALL TIMES UNTIL PROJECT CLOSE-OUT.

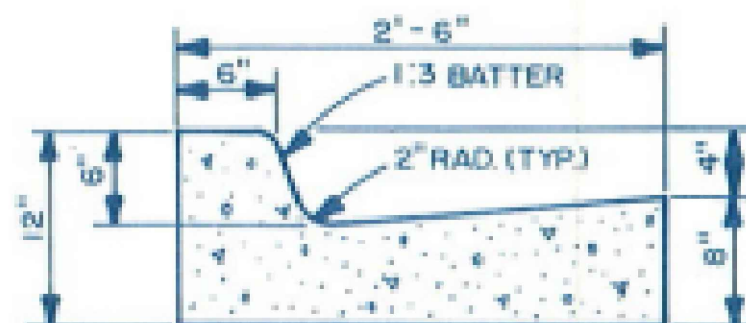
THE CONTRACTOR'S RESPONSIBILITY SHALL INCLUDE MAKING BI-WEEKLY CHECKS ON ALL EROSION CONTROL MEASURES TO DETERMINE IF REPAIR OR SEDIMENT REMOVAL IS NECESSARY. CHECKS SHALL BE DOCUMENTED AND COPIES OF THE INSPECTIONS KEPT ON SITE.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF BARRIER.

SEDIMENT TRACKED ONTO PAVED ROADS MUST BE CLEANED UP AS SOON AS PRACTICAL, BUT IN NO CASE LATER THAN THE END OF THE NORMAL WORK DAY. THE CLEAN UP WILL INCLUDE SWEEPING OF THE TRACKED MATERIAL, PICKING IT UP, AND DEPOSITING IT TO A CONTAINED AREA.

### EXPOSED SLOPES:

- ANY EXPOSED SLOPE THAT WILL REMAIN UNTOUCHED FOR LONGER THAN 14 DAYS MUST BE STABILIZED BY ONE OR MORE OF THE FOLLOWING METHODS:
- SPRAYING DISTURBED AREAS WITH A TACKIFIER VIA HYDROSEED
  - TRACKING STRAW PERPENDICULAR TO SLOPES
  - INSTALLING A LIGHT-WEIGHT, TEMPORARY EROSION CONTROL BLANKET



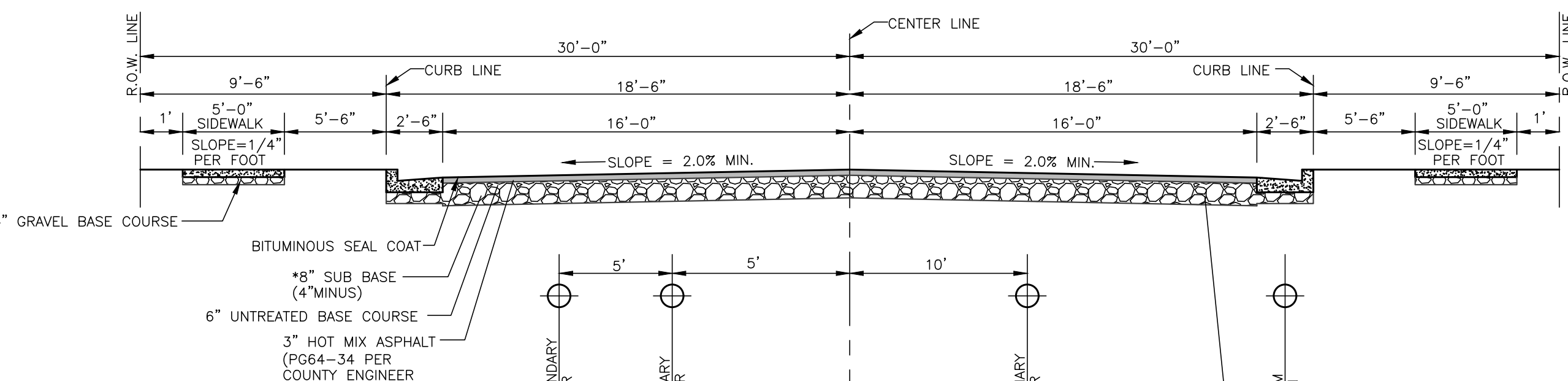
**STANDARD CURB & GUTTER SECTION**

NOTE: SIDEWALKS, CURB & GUTTER AND CROSS DRAINS SHALL BE CONSTRUCTED WITH CLASS "B" CONCRETE (3500 PSI, 28 DAY COMPRESSIVE STRENGTH)

### Legend

SW LAT	= PROPOSED SECONDARY WATER LATERAL	ROW	= RIGHT-OF-WAY
LD LAT	= PROPOSED LAND DRAIN LATERAL	SD	= STORM DRAIN
W LAT	= PROPOSED WATER LATERAL	SS	= SANITARY SEWER
SS LAT	= PROPOSED SEWER LATERAL	TBC	= TOP BACK OF CURB
W/B	= PROPOSED CULINARY WATER LINE	TOA	= TOP OF ASPHALT
EX.W	= EXISTING CULINARY WATER LINE	TOC	= TOP OF CONCRETE
SW/B	= PROPOSED SECONDARY WATER LINE	TOFF	= TOP OF FINISHED FLOOR
EX.SW	= EXISTING SECONDARY WATER LINE	TOS	= TOP OF STAIRS
SS/B	= PROPOSED SANITARY SEWER LINE	TOW	= TOP OF WALL
EX.SS	= EXISTING SANITARY SEWER LINE	TSW	= TOP OF SIDEWALK
SD/15	= PROPOSED STORM DRAIN LINE	UGP	= UNDERGROUND POWER
EX.SD	= EXISTING STORM DRAIN LINE	W	= CULINARY WATER
LD/B	= PROPOSED LAND DRAIN LINE	WM	= WATER METER
EX.LD	= EXISTING LAND DRAIN LINE	BFE	= BASEMENT FLOOR ELEVATION
IRR/18	= PROPOSED IRRIGATION LINE	BLDG	= BUILDING
EX.IRR	= EXISTING IRRIGATION LINE	BOS	= BOTTOM OF STAIRS
X X X	= EXISTING FENCE LINE	BOW	= BOTTOM OF WALL
○ ○ ○	= PROPOSED FENCE LINE	BP	= BEGINNING POINT
---	= DRAINAGE SWALE	C&G	= CURB & GUTTER
OHP	= OVERHEAD POWER LINE	CB	= CATCH BASIN
●	= PROPOSED FIRE HYDRANT	CF	= CUBIC FEET
○	= EXISTING FIRE HYDRANT	CFS	= CUBIC FEET PER SECOND
○	= PROPOSED MANHOLE	EP	= ENDING POINT
○	= EXISTING MANHOLE	FF	= FINISH FLOOR
●	= PROPOSED SEWER CLEAN-OUT	FFE	= FINISH FLOOR ELEVATION
X	= PROPOSED GATE VALVE	FG	= FINISHED GRADE
X	= EXISTING GATE VALVE	FH	= FIRE HYDRANT
⊥	= PLUG & BLOCK	FL	= FLOW LINE
⊕	= AIR VAC ASSEMBLY	GB	= GRADE BREAK
○ ○	= DUAL SECONDARY METER	INV	= INVERT
		LF	= LINEAR FEET
		NG	= NATURAL GRADE
		OHP	= OVERHEAD POWER
		PC	= POINT OF CURVATURE
		PP	= POWER/UTILITY POLE
		PRC	= POINT OF RETURN CURVATURE
		PT	= POINT OF TANGENCY
		PUE	= PUBLIC UTILITY BASEMENT
		RCP	= REINFORCED CONCRETE PIPE
		RIM	= RIM OF MANHOLE

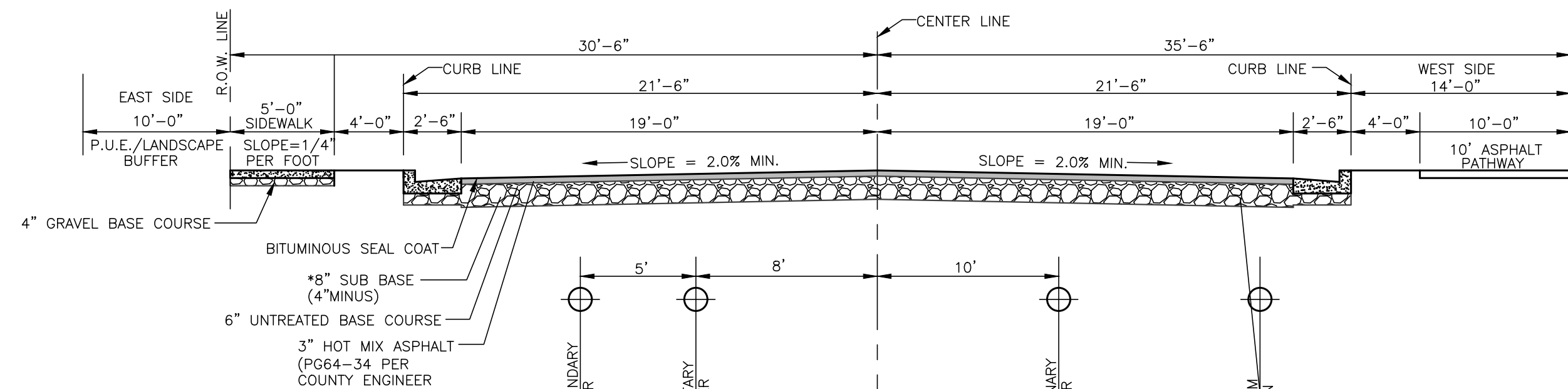
NOTE: BASEMENTS ARE NOT TO BE CONSTRUCTED  
MINIMUM FLOOR ELEVATION CAN NOT BE MORE THAN 12" BELOW CURB ELEVATION



NOTE: THESE PAVEMENT THICKNESS SHALL BE CONSIDERED AS MINIMUMS AND MAY BE INCREASED BY THE COUNTY ENGINEER WHEN THE SUBGRADE C.B.R. IS LESS THAN 10 OR WHEN A GREATER DEPTH IS NECESSARY NOT BE MAINTAINED. AN ALTERNATIVE PAVEMENT DESIGN BASED ON A SOILS ANALYSIS FOR APPROVAL BY THE COUNTY ENGINEER. COURSES WILL BE REQUIRED.

### Street Section (60' R.O.W.)

SCALE: NONE  
\*VERIFY LOCATION WITH PHONE, GAS AND POWER COMPANIES.



NOTE: THESE PAVEMENT THICKNESS SHALL BE CONSIDERED AS MINIMUMS AND MAY BE INCREASED BY THE COUNTY ENGINEER WHEN THE SUBGRADE C.B.R. IS LESS THAN 10 OR WHEN A GREATER DEPTH IS NECESSARY TO PROVIDE SUFFICIENT STABILITY. DEVELOPER MAY SUBMIT AN ALTERNATIVE PAVEMENT DESIGN BASED ON A SOILS ANALYSIS FOR APPROVAL BY THE COUNTY ENGINEER. CONSTRUCTION TESTS ON BOTH SUB-BASE AND BASE COURSES WILL BE REQUIRED.

### Street 'A' Street Section (66' R.O.W.)

SCALE: NONE  
\*VERIFY LOCATION WITH PHONE, GAS AND POWER COMPANIES.

**Reeve & Associates, Inc.**  
5160 SOUTH 1500 WEST, RIVERDALE, UTAH 84405  
TEL: (801) 671-1100 www.reeve.com

**IAA**  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF UTAH  
J. NATE REEVE  
10/05/2023

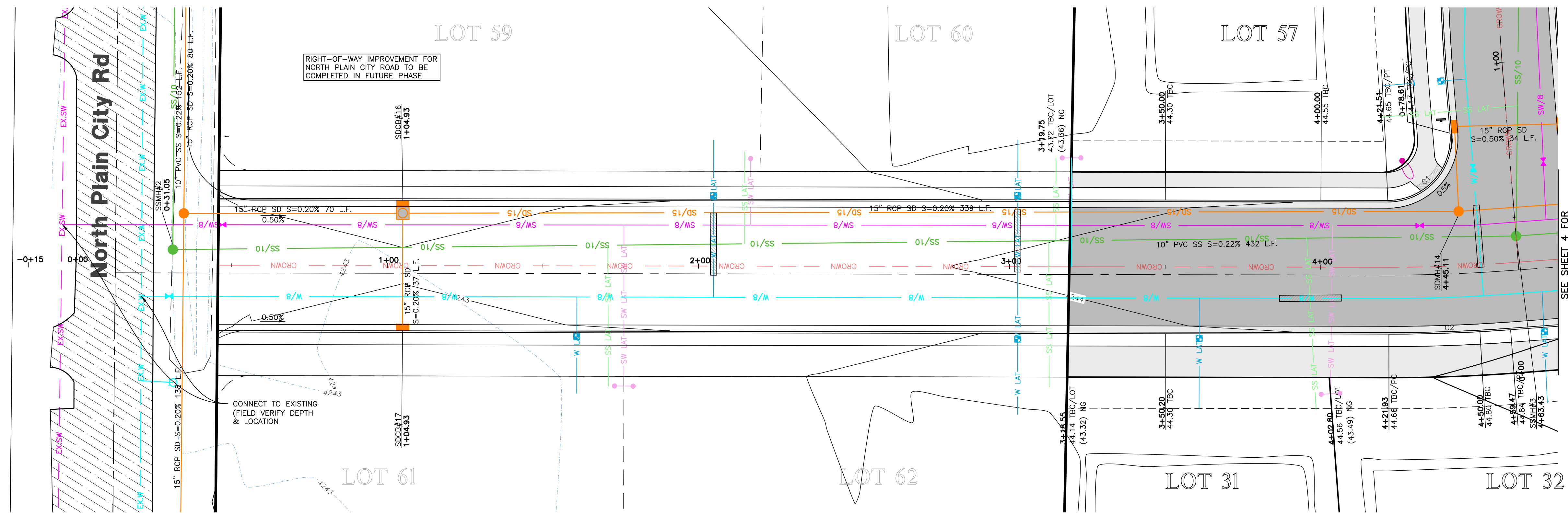
REVISIONS	DATE	DESCRIPTION
06.28.23	06.28.23	06.28.23 NF J-U-B Comments
09.20.23	09.20.23	09.20.23 NF Lot Numbers

**The Grove at JDC Ranch Subdivision**  
**Phase 1 & 2**  
WEBER COUNTY, UTAH

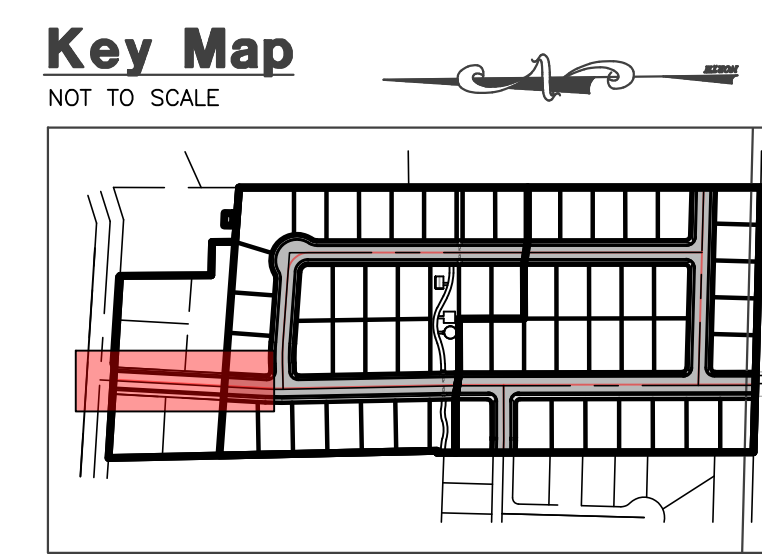
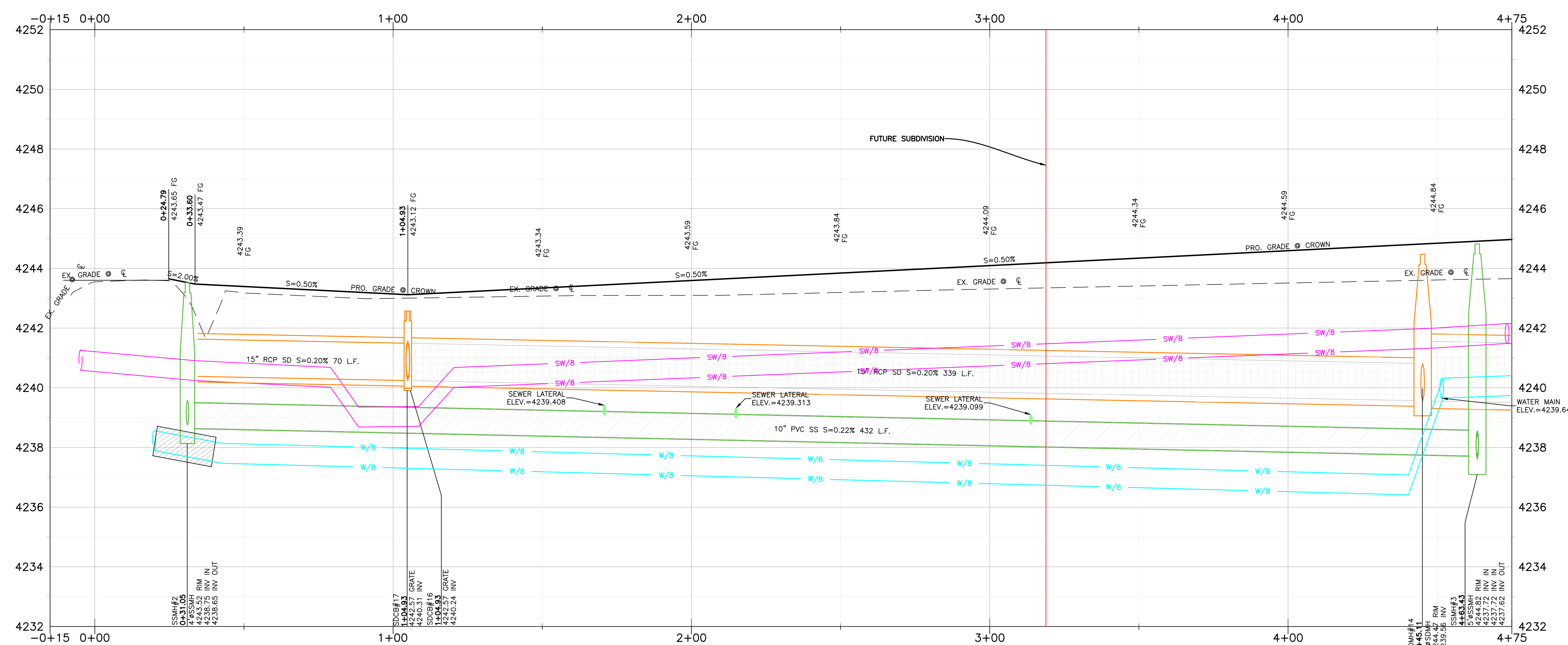
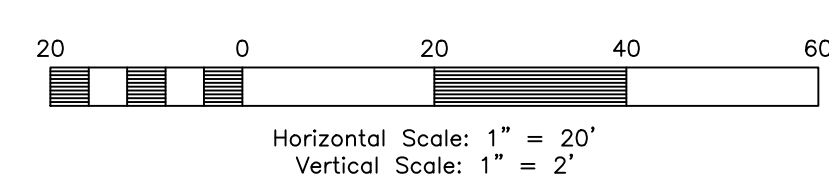
**Notes/Legend/  
Street Cross-Section**

**REGISTERED PROFESSIONAL ENGINEER**  
STATE OF UTAH  
J. NATE REEVE  
10/05/2023

**Project Info.**  
Engineer: J. NATE REEVE, P.E.  
Drafter: N. FICKLIN  
Begin Date: MARCH 2022  
Name: THE GROVE AT JDC RANCH SUBDIVISION  
PHASE 1 & 2  
Number: 7152-14



2875 West 0+00.00 - 4+50.00



- Construction Notes:**
- CULINARY WATER**  
 NOTE: 4' MIN. COVER REQUIRED OVER CW LINES  
 W/8 - 8" DIP W/POLY WRAP WATER LINE  
 W LAT - 1" TYPE K COPPER SERVICE LATERAL
- SANITARY SEWER**  
 SS/10 - 10" PVC SDR-35 SEWER LINE  
 SS/12 - 12" PVC SDR-35 SEWER LINE  
 SS LAT - 4" PVC SDR-35 SERVICE LATERAL
- STORM DRAIN**  
 SD/30 - 30" RCP CLASS III STORM DRAIN  
 SD/24 - 24" RCP CLASS III STORM DRAIN  
 SD/18 - 18" RCP CLASS III STORM DRAIN  
 SD/15 - 15" RCP CLASS III STORM DRAIN  
 SD/8 - 8" PVC YARD DRAIN  
 SD/6 - 6" PVC YARD DRAIN
- SECONDARY WATER**  
 SW/8 - 8" PVC C-900 DR-14 SECONDARY WATER LINE  
 SW LAT - 1" SERVICE LATERAL W/ 1" METER (SINGLE SERVICE)  
 SW LAT - 1.5" SERVICE LATERAL W/ 1" METER (DOUBLE SERVICE)

- NOTE:**
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  - CONSTRUCT HANDICAP RAMP PER ADA AND CITY REQUIREMENTS.
  - PROVIDE 18" CLEARANCE FOR LATERALS OVER SEWER.
  - DEPTH OF WATER TO BE 4' MIN. BELOW FINISHED GRADE.
  - CULINARY WATER TO BE INSTALLED PER BONA VISTA STANDARDS.
  - ALL EXISTING DITCHES THAT ARE BEING FILLED IN, MUST HAVE STRUCTURAL FILL IN ALL RIGHT-OF-WAY AND BUILDING FOOTPRINTS.
  - PVC SLEEVES TO BE INSTALLED UNDER PATHWAY FOR SPRINKLER USE.
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**RA**

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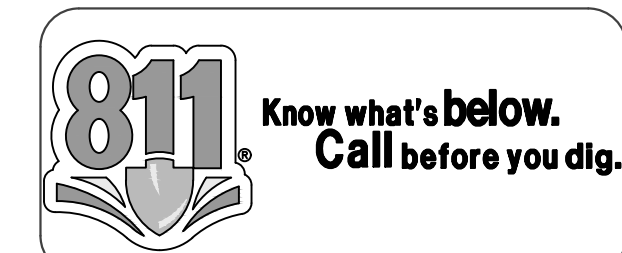
REVISIONS	DATE	DESCRIPTION
06.28.23	09.20.23	NF J-U-B Comments
09.20.23		NF Lot Numbers

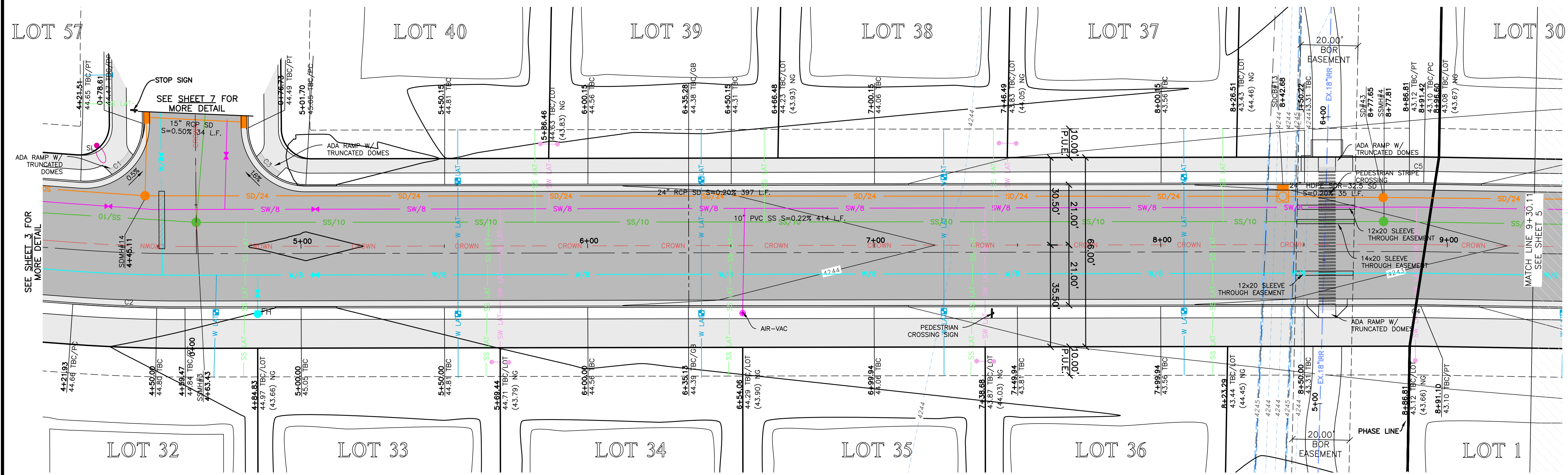
**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
 WEBER COUNTY, UTAH

**2875 West 0+00.00 - 4+50.00**

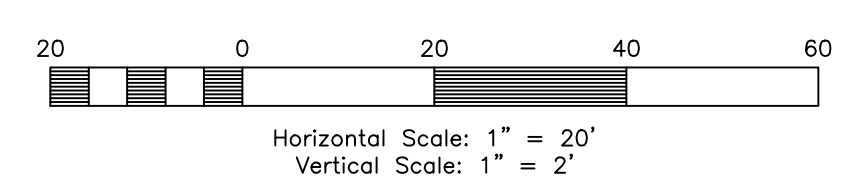


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 Begin Date: MARCH 2022  
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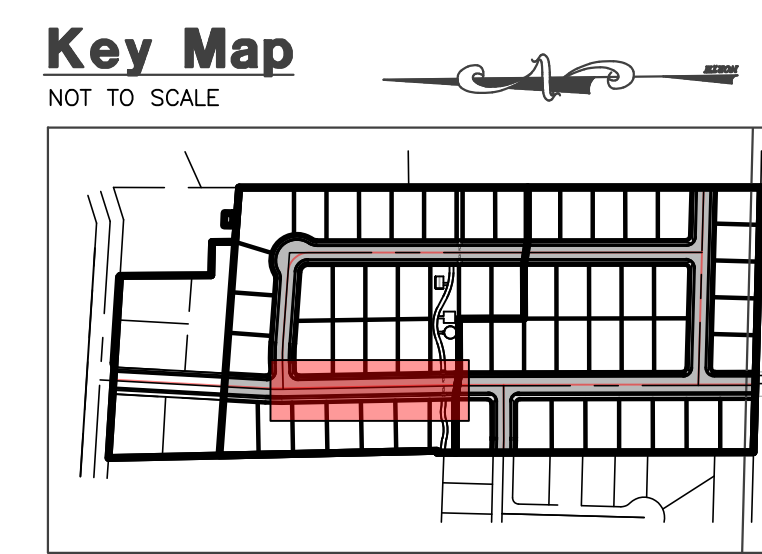
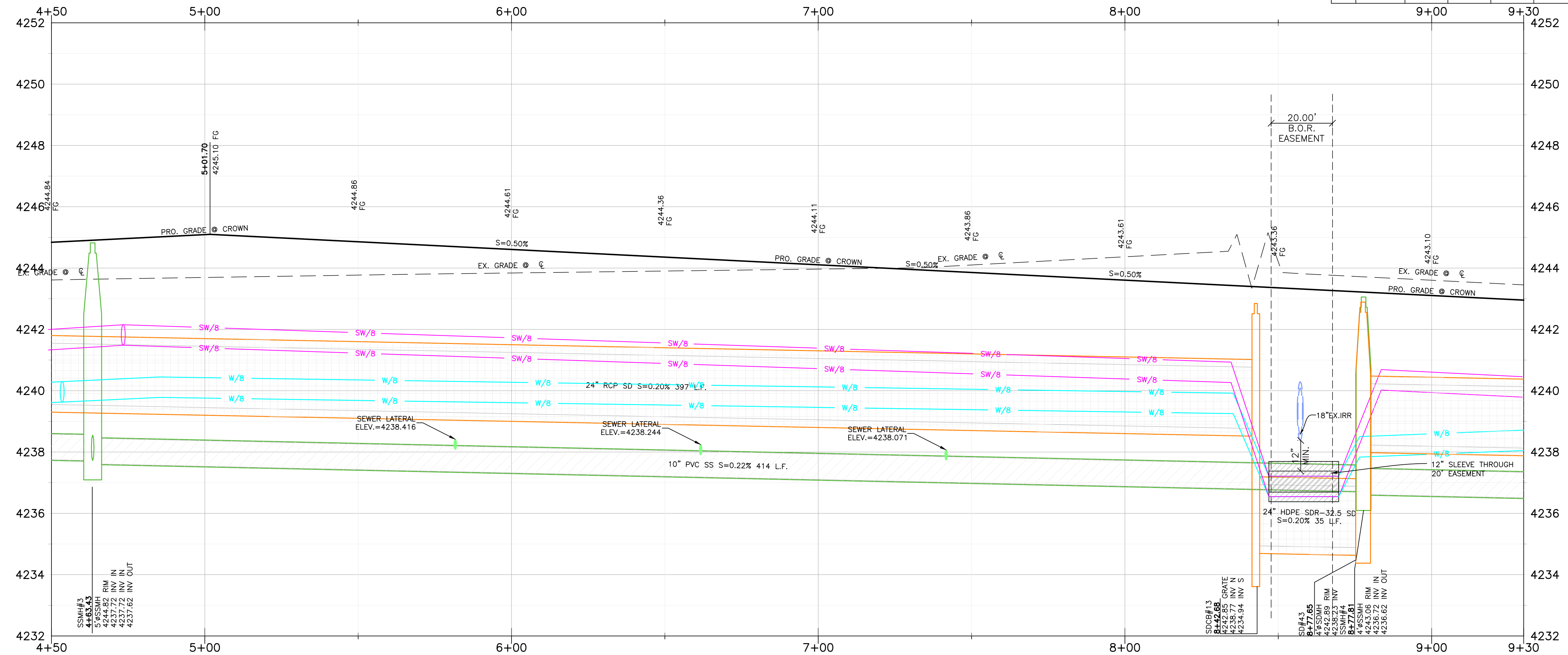




**2875 West 4+50.00 - 9+30.00**



TBC Curve Data						
#	Delta	Radius	Length	Tangent	Chord	CH Length
C1	94°44'19"	20.00'	33.07'	21.73'	S44°10'50"E	29.43'
C2	4°19'51"	519.00'	39.23'	19.62'	S1°01'24"W	39.22'
C3	89°35'32"	20.00'	31.27'	19.86'	S43°39'14"W	28.18'
C4	1°02'48"	195.76'	3.58'	1.79'	S0°37'08"E	3.58'
C5	1°02'48"	278.00'	5.08'	2.54'	N0°37'08"W	5.08'



- Construction Notes:**
- CULINARY WATER**  
 NOTE: 4" MIN. COVER REQUIRED OVER CW LINES  
 W/8 - 8" DIP W/POLY WRAP WATER LINE  
 W LAT - 1" TYPE K COPPER SERVICE LATERAL
- SANITARY SEWER**  
 SS/10 - 10" PVC SDR-35 SEWER LINE  
 SS/12 - 12" PVC SDR-35 SEWER LINE  
 SS LAT - 4" PVC SDR-35 SERVICE LATERAL
- STORM DRAIN**  
 SD/30 - 30" RCP CLASS III STORM DRAIN  
 SD/24 - 24" RCP CLASS III STORM DRAIN  
 SD/18 - 18" RCP CLASS III STORM DRAIN  
 SD/15 - 15" RCP CLASS III STORM DRAIN  
 SD/8 - 8" PVC YARD DRAIN  
 SD/6 - 6" PVC YARD DRAIN
- SECONDARY WATER**  
 SW/8 - 8" PVC C-900 DR-14 SECONDARY  
 WATER LINE  
 SW LAT - 1" SERVICE LATERAL W/ 1" METER  
 (SINGLE SERVICE)  
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**RA**

REGISTERED PROFESSIONAL ENGINEER  
 J. NATE REEVE  
 375328  
 10/05/2023  
 STATE OF UTAH

REVISIONS

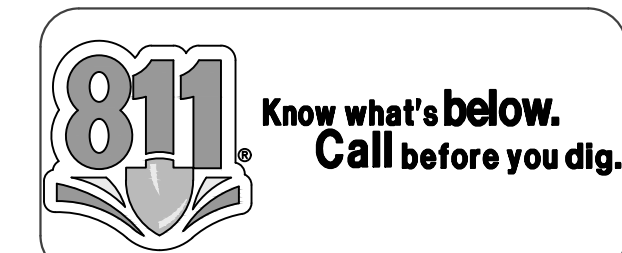
DATE	DESCRIPTION
06.28.23	REV J-U-B Comments
09.20.23	REV Lot Numbers

**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
 WEBER COUNTY, UTAH

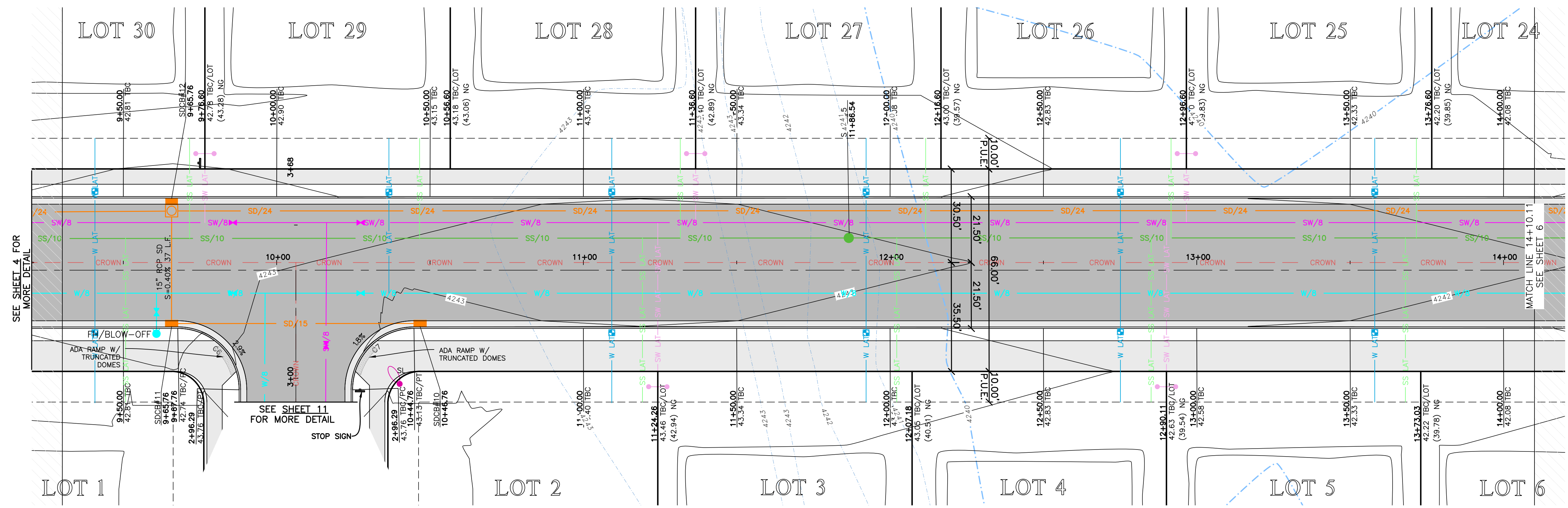
**2875 West 4+50.00 - 9+30.00**

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 375328  
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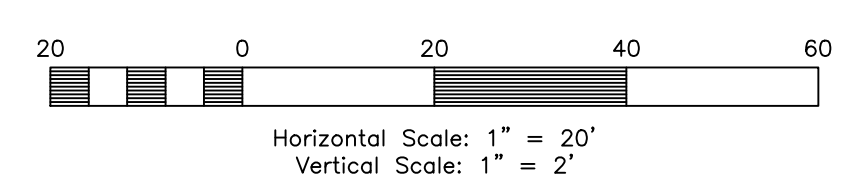
**Project Info.**  
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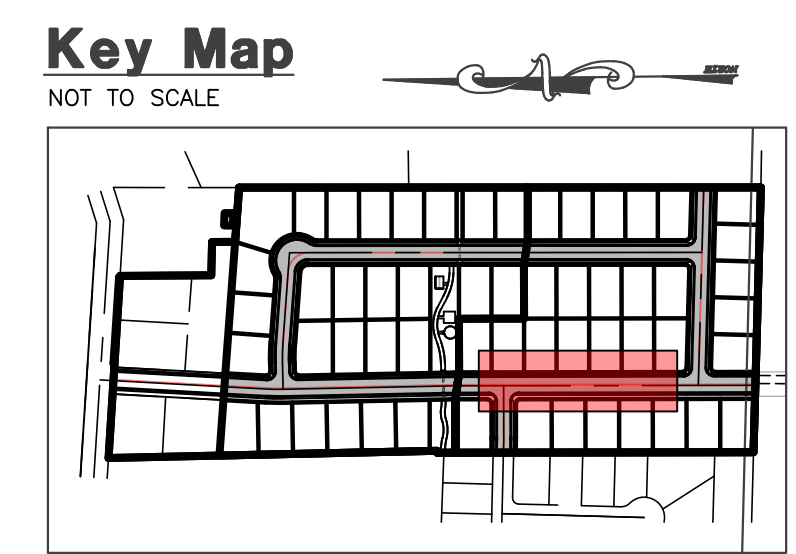
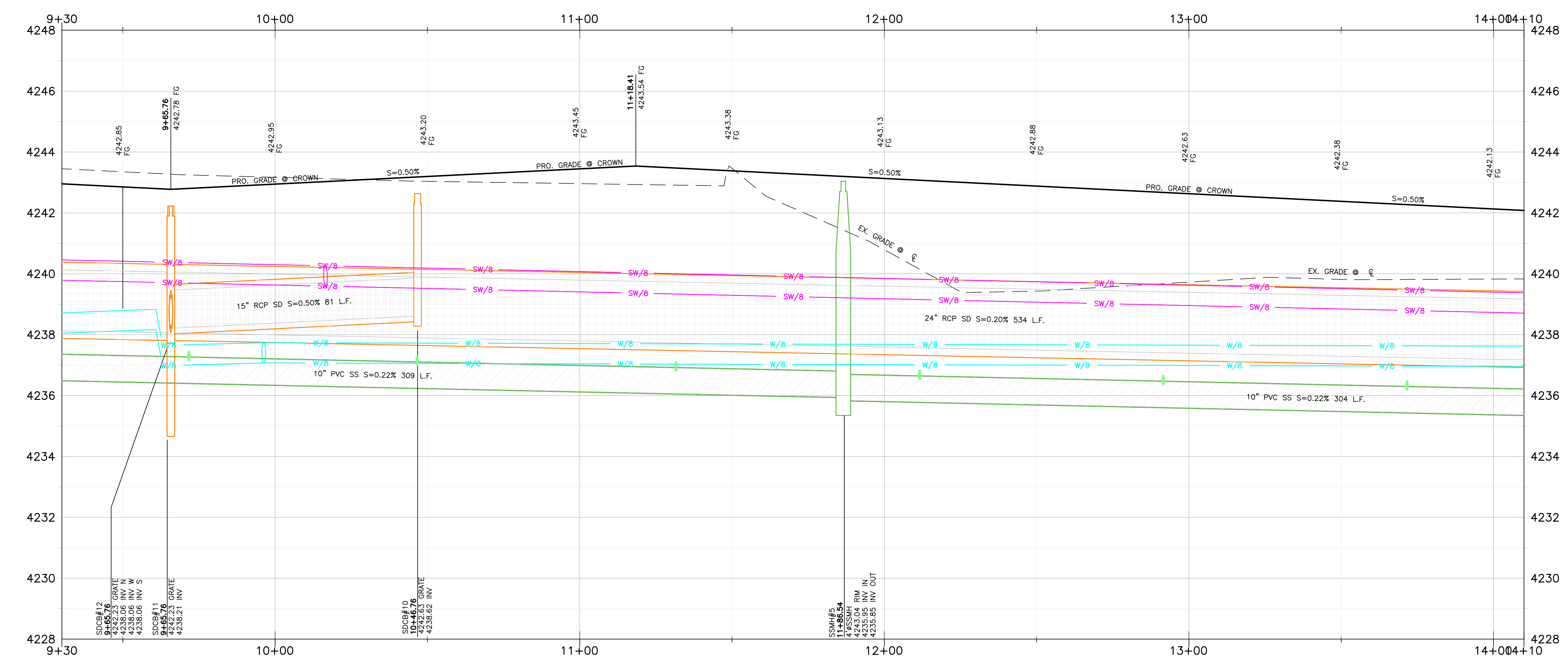
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**2875 West 9+30.00 - 14+10.00**



#	Delta	Radius	Length	Tangent	Chord	CH Length
C6	90°00'00"	20.00'	31.42'	20.00'	N44°54'16"E	28.28'
C7	90°00'00"	20.00'	31.42'	20.00'	N45°05'44"W	28.28'



- Construction Notes:**
- CULINARY WATER**  
 NOTE: 4' MIN. COVER REQUIRED OVER CW LINES  
 W/8 - 8" DIP W/POLY WRAP WATER LINE  
 W LAT - 1" TYPE K COPPER SERVICE LATERAL
- SANITARY SEWER**  
 SS/10 - 10" PVC SDR-35 SEWER LINE  
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 SD/30 - 30" RCP CLASS III STORM DRAIN  
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- SECONDARY WATER**  
 SW/8 - 8" PVC C-900 DR-14 SECONDARY WATER LINE  
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REVISIONS	DATE	DESCRIPTION
	06.28.23	NF J-U-B Comments
	09.20.23	NF Lot Numbers

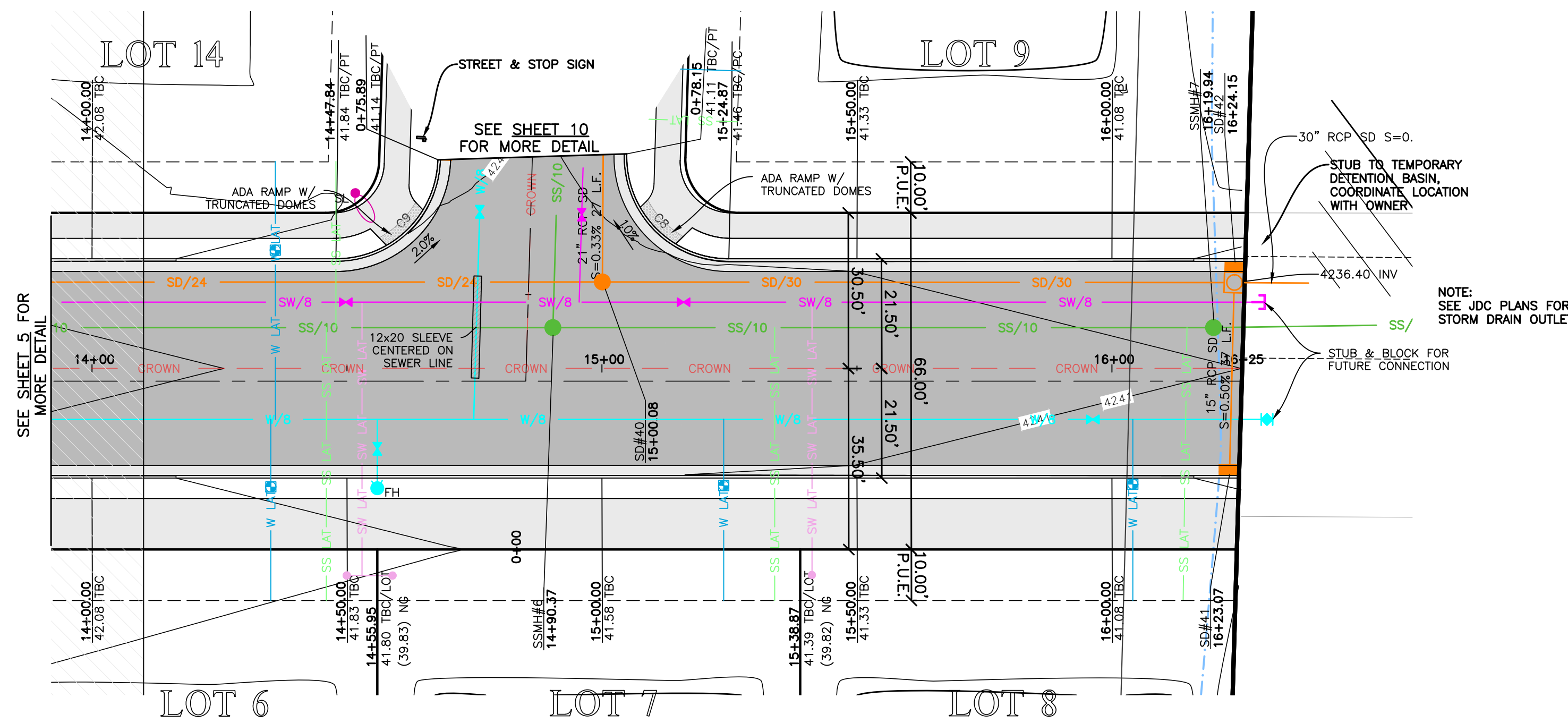
**The Grove at JDC Ranch Subdivision**  
**Phase 1 & 2**  
 WEBER COUNTY, UTAH

**2875 West 9+30.00 - 14+10.00**

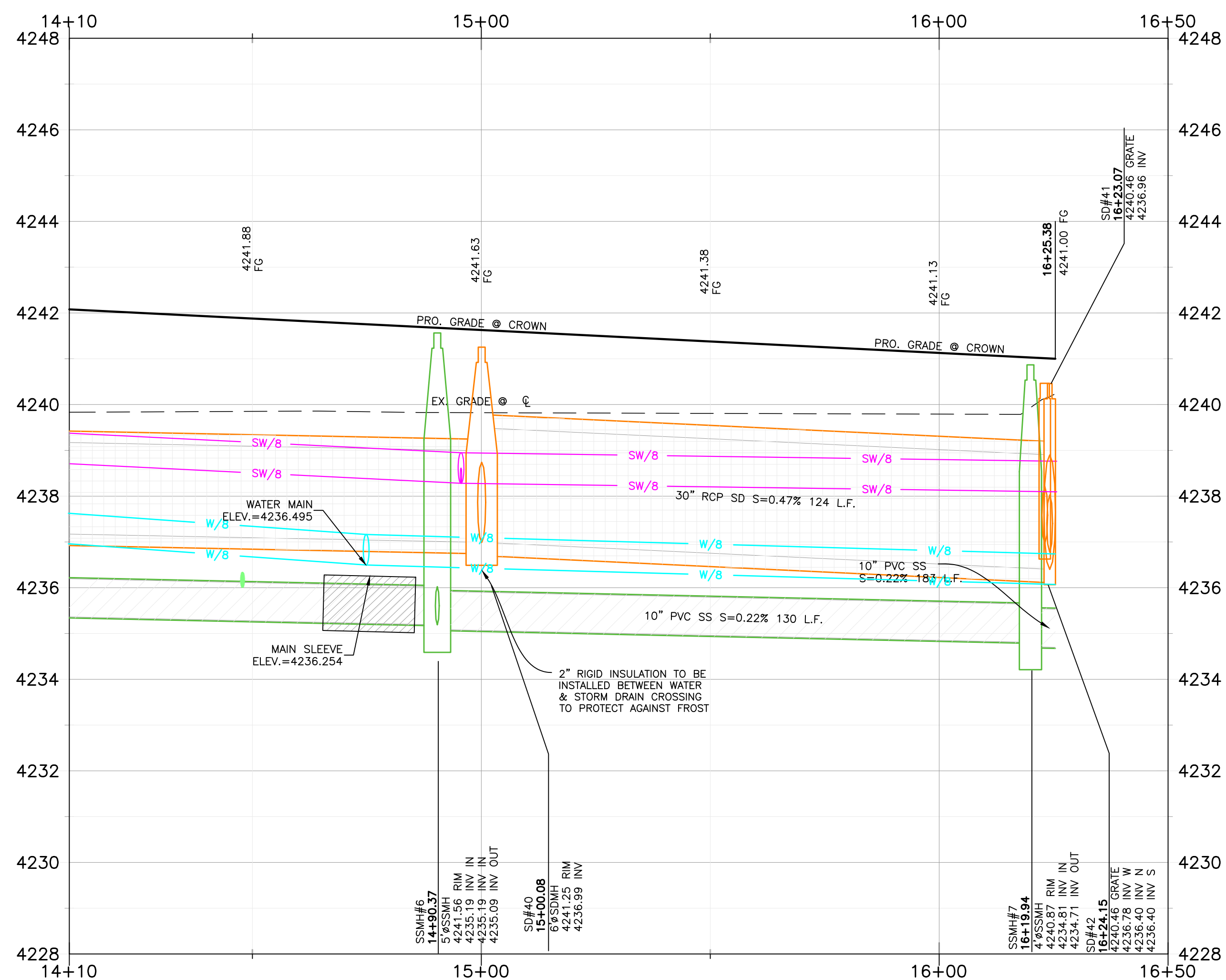
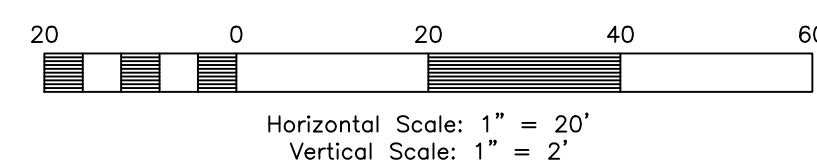


**Project Info.**  
 Engineer: J. NATE REEVE, P.E.  
 Drafter: N. FICKLIN  
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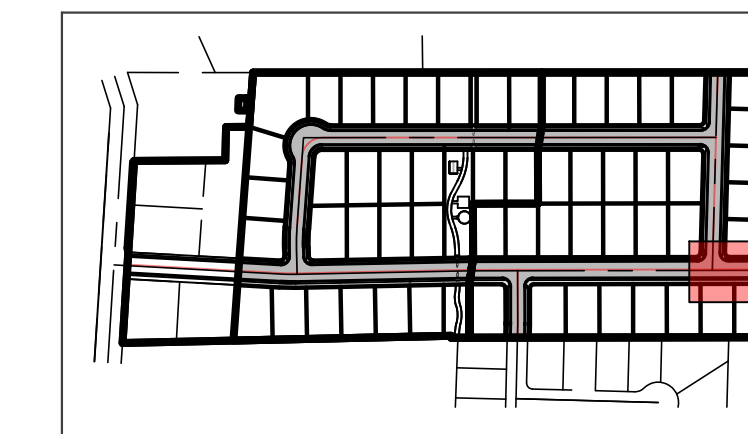
### 2875 West 14+10.00 - 16+25.35



TBC Curve Data						
#	Delta	Radius	Length	Tangent	Chord	CH Length
C8	91°40'32"	20.00'	32.00'	20.59'	S45°44'32"W	28.69'
C9	88°19'28"	20.00'	30.83'	19.42'	S44°15'28"E	27.87'

### Key Map

NOT TO SCALE



### Construction Notes:

**CULINARY WATER**  
NOTE: 4" MIN. COVER REQUIRED OVER CW LINES  
W/8 - 8" DIP W/POLY WRAP WATER LINE  
W LAT - 1" TYPE K COPPER SERVICE LATERAL

**SANITARY SEWER**  
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SS/12 - 12" PVC SDR-35 SEWER LINE  
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**STORM DRAIN**  
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SW/8 - 8" PVC C-900 DR-14 SECONDARY WATER LINE  
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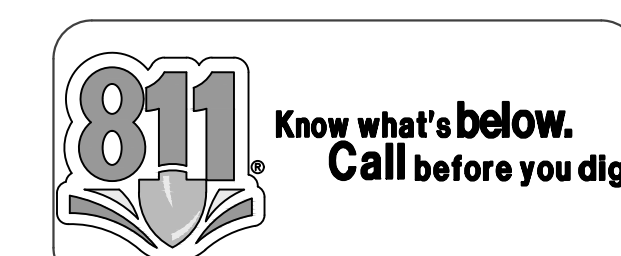
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	09.20.23	NF Lot Numbers

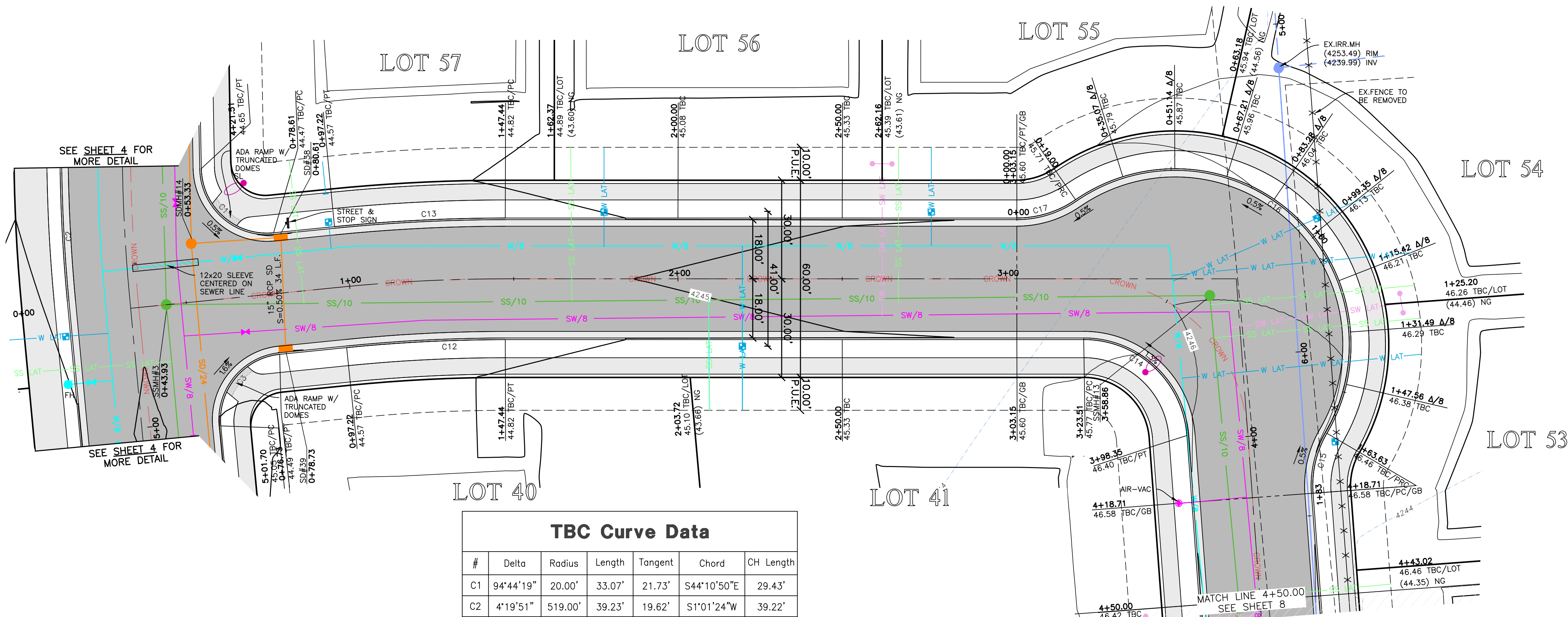
**The Grove at JDC Ranch Subdivision**  
**Phase 1 & 2**  
WEBER COUNTY, UTAH

**2875 West 14+10.00 - 16+25.35**

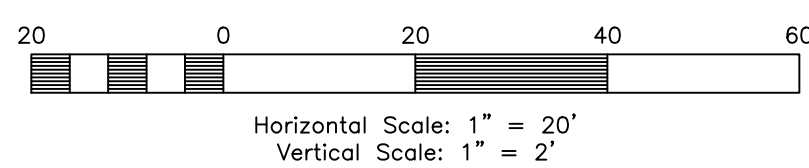


**Project Info.**  
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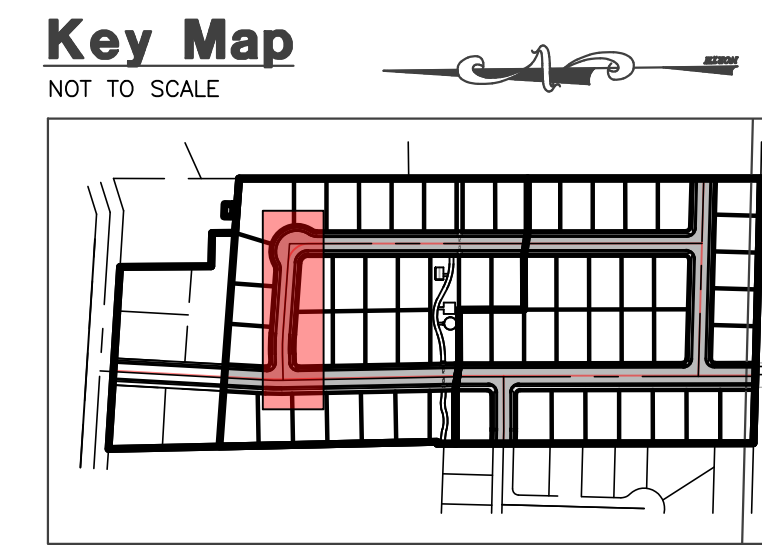
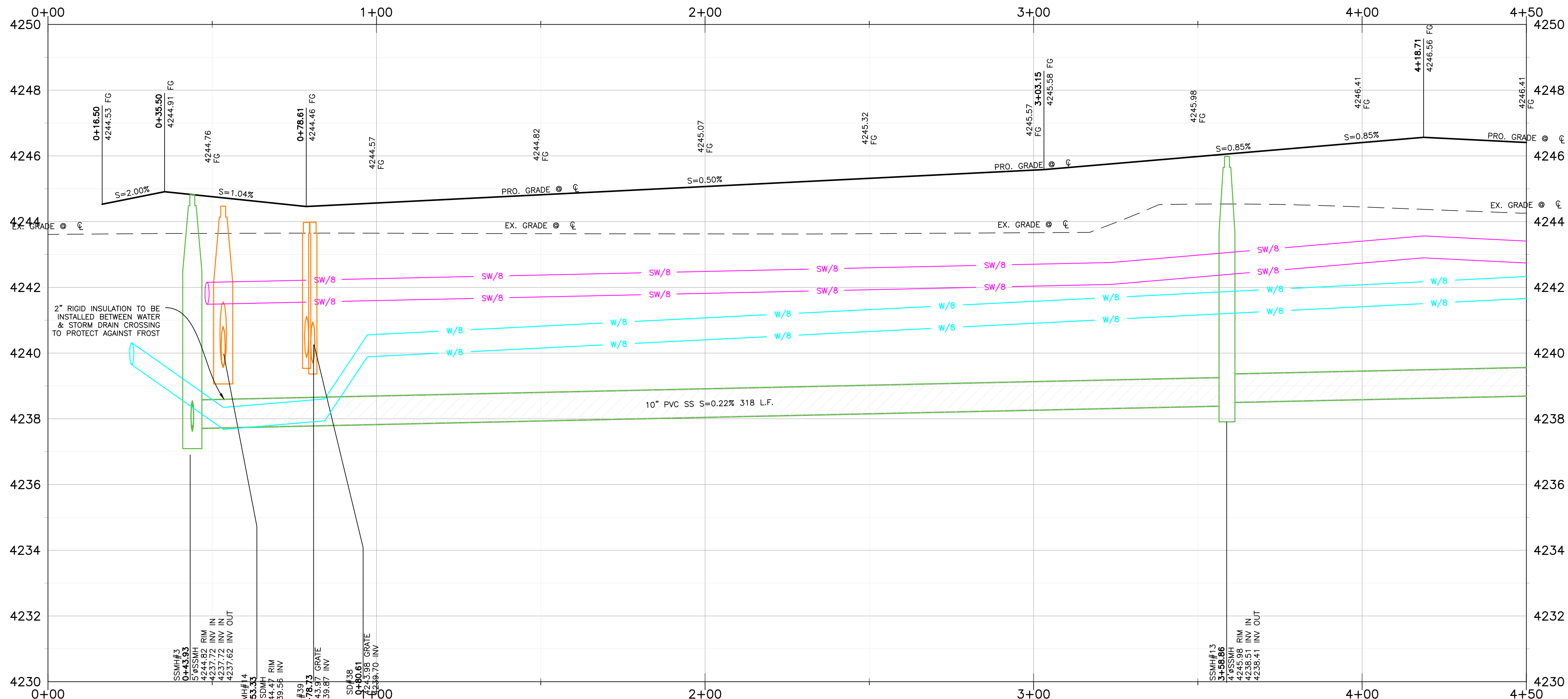


**3225 North 0+00.00 - 4+50.00**



TBC Curve Data						
#	Delta	Radius	Length	Tangent	Chord	CH Length
C1	94°44'19"	20.00'	33.07'	21.73'	S44°10'50"E	29.43'
C2	4°19'51"	519.00'	39.23'	19.62'	S1°01'24"W	39.22'
C3	89°35'32"	20.00'	31.27'	19.86'	S43°39'14"W	28.18'
C12	5°45'16"	481.50'	48.36'	24.20'	N88°40'22"W	48.34'
C13	5°45'16"	518.50'	52.08'	26.06'	N88°40'22"W	52.05'
C14	85°46'02"	31.50'	47.15'	29.25'	N42°54'43"W	42.88'
C15	34°33'37"	31.50'	19.00'	9.80'	S17°15'06"W	18.71'
C16	154°53'16"	53.50'	144.63'	240.21'	N42°54'43"W	104.44'
C17	34°33'37"	31.50'	19.00'	9.80'	N76°55'27"E	18.71'

- NOTE:
- LOT 220-223 WATER METERS TO BE LOCATED WITHIN P.U.E.
  - DUAL SECONDARY WATER LATERALS FOR LOT 219-222 METERS TO BE LOCATED WITHIN P.U.E.
  - NO STRUCTURES OR METERS TO BE LOCATED WITHIN EXISTING IRRIGATION EASEMENT.
  - POWER, COMMUNICATIONS, & GAS TO BE PROVIDED/DESIGNED BY OTHERS.
  - ALL UTILITIES CROSSING OVER OR UNDER EXISTING IRRIGATION MUST MAINTAIN 12" FROM TOP OR BOTTOM OF EXISTING IRRIGATION.
  - SEWER PIPE & STRUCTURES, CULINARY WATER, & SECONDARY WATER MAINS SHOW FOR REFERENCE ONLY. MAINS ARE LOCATED WITHIN STREET.
  - ALL UTILITIES CROSSING WITHIN EXISTING EASEMENTS MUST BE SLEEVED.
  - 1" & 3/4" LATERALS TO BE INCASED WITH SCHEDULE 40 PVC PIPE.
  - BUILDERS (LOT PURCHASERS) MUST OBTAIN AN "EASEMENT ENCROACHMENT AGREEMENT" FROM WBWCD/BOR, FOR DRIVEWAYS ON SPECIFIC LOTS.



**Construction Notes:**

- CULINARY WATER**  
 NOTE: 4' MIN. COVER REQUIRED OVER CW LINES  
 W/8 - 8" DIP W/POLY WRAP WATER LINE  
 W LAT - 1" TYPE K COPPER SERVICE LATERAL
- SANITARY SEWER**  
 SS/10 - 10" PVC SDR-35 SEWER LINE  
 SS/12 - 12" PVC SDR-35 SEWER LINE  
 SS LAT - 4" PVC SDR-35 SERVICE LATERAL
- STORM DRAIN**  
 SD/30 - 30" RCP CLASS III STORM DRAIN  
 SD/24 - 24" RCP CLASS III STORM DRAIN  
 SD/18 - 18" RCP CLASS III STORM DRAIN  
 SD/15 - 15" RCP CLASS III STORM DRAIN  
 SD/8 - 8" PVC YARD DRAIN  
 SD/6 - 6" PVC YARD DRAIN
- SECONDARY WATER**  
 SW/8 - 8" PVC C-900 DR-14 SECONDARY WATER LINE  
 SW LAT - 1" SERVICE LATERAL W/ 1" METER (SINGLE SERVICE)  
 SW LAT - 1.5" SERVICE LATERAL W/ 1" METER (DOUBLE SERVICE)

- NOTE:
- ALL CONSTRUCTION IS TO CONFORM TO THE CITY STANDARD DRAWINGS AND SPECIFICATIONS.
  - CONSTRUCT HANDICAP RAMP PER ADA AND CITY REQUIREMENTS.
  - PROVIDE 18" CLEARANCE FOR LATERALS OVER SEWER.
  - DEPTH OF WATER TO BE 4' MIN. BELOW FINISHED GRADE.
  - CULINARY WATER TO BE INSTALLED PER BONA VISTA STANDARDS.
  - ALL EXISTING DITCHES THAT ARE BEING FILLED IN, MUST HAVE STRUCTURAL FILL IN ALL RIGHT-OF-WAY AND BUILDING FOOTPRINTS.
  - PVC SLEEVES TO BE INSTALLED UNDER PATHWAY FOR SPRINKLER USE.
  - CONTRACTOR TO INSTALL ALL SLEEVES AS REQUIRED FOR THE RESIDENTIAL DEVELOPMENT.
  - FOR ELECTRICITY CONDUITS COORDINATE WITH ROCKY MOUNTAIN POWER.
  - CONTRACTOR TO INSTALL CONDUITS FROM TRANSFORMER TO LIGHT LOCATIONS WITH JUNCTION BOXES AS NEEDED TO BE USED TO POWER STREET LIGHTS.
  - LOCATION WHERE 18" VERTICAL SEPARATION FOR WATER CROSSING SEWER MAINS CAN NOT BE MAINTAINED, WATER MAINS MUST BE SLEEVED WITH 12"x20" CENTERED AT CROSSING.
  - LOCATIONS WHERE 18" VERTICAL SEPARATIONS FOR SEWER & CULINARY WATER LINES CAN NOT BE MAINTAINED, WATER LATERALS TO SLEEVED WITH 6"x18" AT CROSSING.

**Reeve & Associates, Inc.**  
 5160 SOUTH 1500 WEST, RIVERDALE, UTAH 84405  
 TEL: (801) 621-3100 www.reeve.co

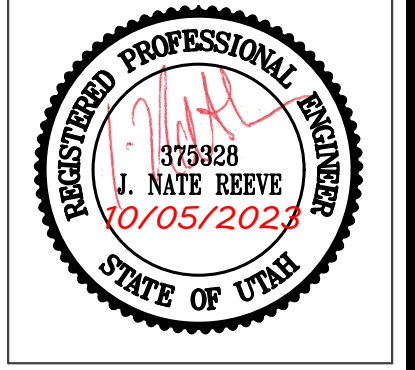
**RA**

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 TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DATE	DESCRIPTION
	06.28.23	NF J-U-B Comments
	09.20.23	NF Lot Numbers

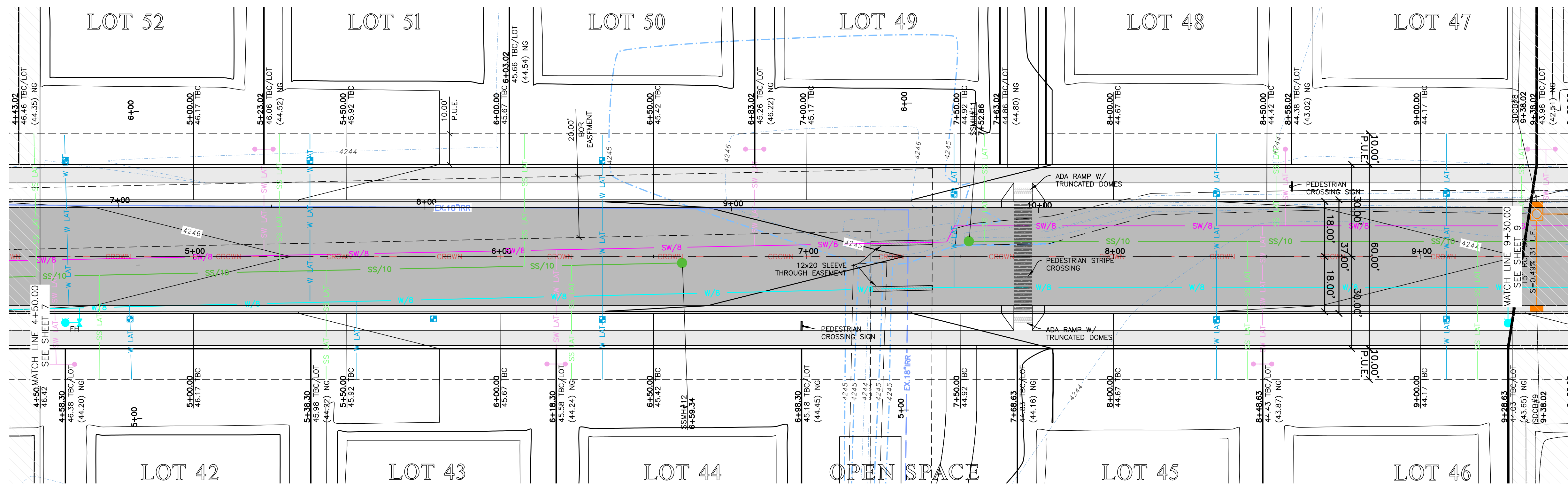
**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
 WEBER COUNTY, UTAH

**3225 North 0+00.00 - 4+50.00**

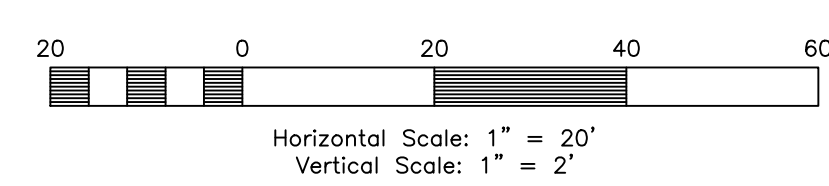


**Project Info.**  
 Engineer: J. NATE REEVE, P.E.  
 Drafter: N. FICKLIN  
 Begin Date: MARCH 2022  
 Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
 Number: 7152-14

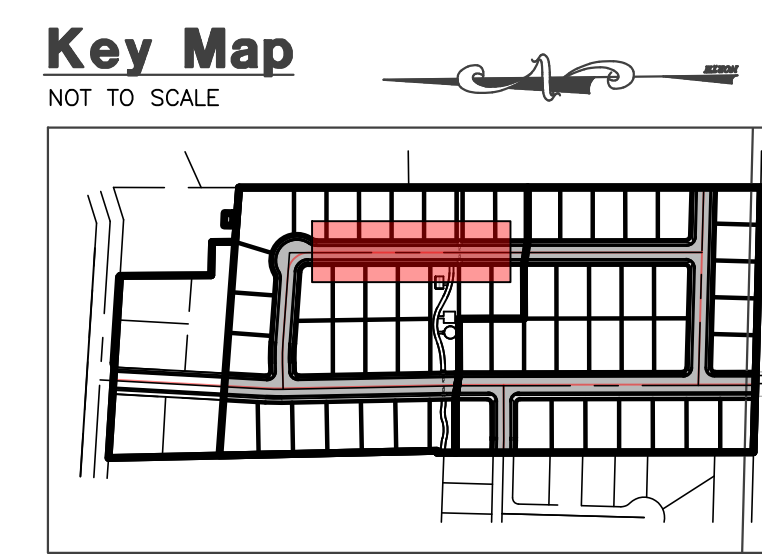
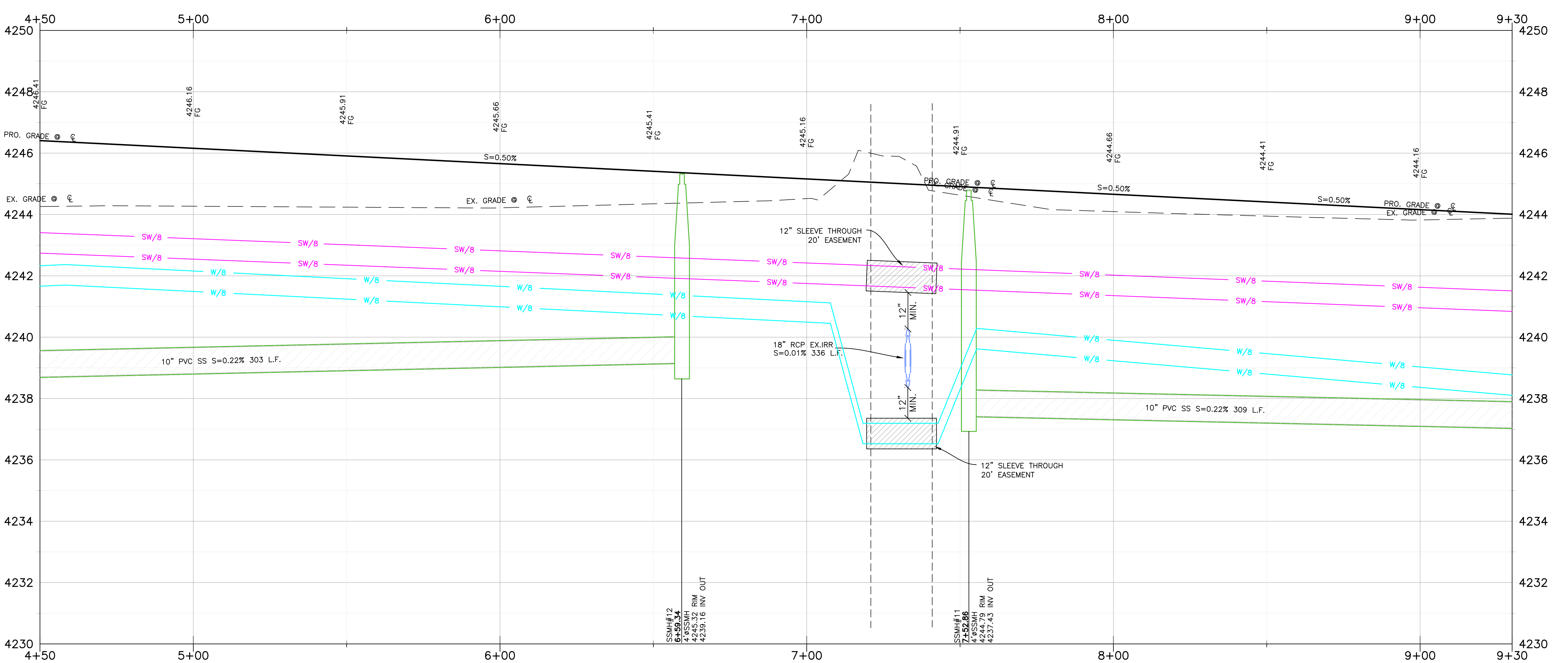




### 2825 West 4+50.00 - 9+30.00



- NOTE:
- LOT 420-423 WATER METERS TO BE LOCATED WITHIN P.U.E.
  - DUAL SECONDARY WATER LATERALS FOR LOT 419-422 METERS TO BE LOCATED WITHIN P.U.E.
  - NO STRUCTURES OR METERS TO BE LOCATED WITHIN EXISTING IRRIGATION EASEMENT.
  - POWER, COMMUNICATIONS, & GAS TO BE PROVIDED/DESIGNED BY OTHERS.
  - ALL UTILITIES CROSSING OVER OR UNDER EXISTING IRRIGATION MUST MAINTAIN 12" FROM TOP OR BOTTOM OF EXISTING IRRIGATION.
  - SEWER PIPE & STRUCTURES, CULINARY WATER, & SECONDARY WATER MAINS SHOW FOR REFERENCE ONLY. MAINS ARE LOCATED WITHIN STREET.
  - ALL UTILITIES CROSSING WITHIN EXISTING EASEMENTS MUST BE SLEEVED.
  - 1" & 3/4" LATERALS TO BE INCASED WITH SCHEDULE 40 PVC PIPE.
  - BUILDERS (LOT PURCHASERS) MUST OBTAIN AN "EASEMENT ENCROACHMENT AGREEMENT" FROM WB/C/D/BOR, FOR DRIVEWAYS ON SPECIFIC LOTS.



- #### Construction Notes:
- CULINARY WATER**  
NOTE: 4' MIN. COVER REQUIRED OVER CW LINES  
W/8 - 8" DIP W/POLY WRAP WATER LINE  
W LAT - 1" TYPE K COPPER SERVICE LATERAL
- SANITARY SEWER**  
SS/10 - 10" PVC SDR-35 SEWER LINE  
SS/12 - 12" PVC SDR-35 SEWER LINE  
SS LAT - 4" PVC SDR-35 SERVICE LATERAL
- STORM DRAIN**  
SD/30 - 30" RCP CLASS III STORM DRAIN  
SD/24 - 24" RCP CLASS III STORM DRAIN  
SD/18 - 18" RCP CLASS III STORM DRAIN  
SD/15 - 15" RCP CLASS III STORM DRAIN  
SD/8 - 8" PVC YARD DRAIN  
SD/6 - 6" PVC YARD DRAIN
- SECONDARY WATER**  
SW/8 - 8" PVC C-900 DR-14 SECONDARY WATER LINE  
SW LAT - 1" SERVICE LATERAL W/ 1" METER (SINGLE SERVICE)  
SW LAT - 1.5" SERVICE LATERAL W/ 1" METER (DOUBLE SERVICE)

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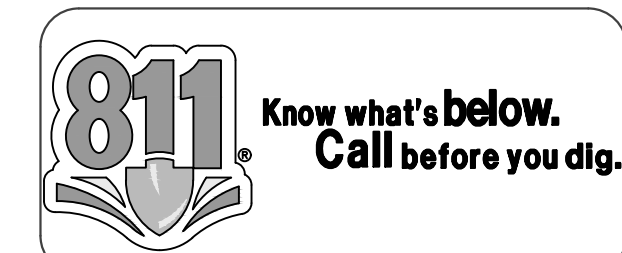
REVISIONS	DATE	DESCRIPTION
	06.28.23	NF J-U-B Comments
	09.20.23	NF Lot Numbers

**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
WEBER COUNTY, UTAH

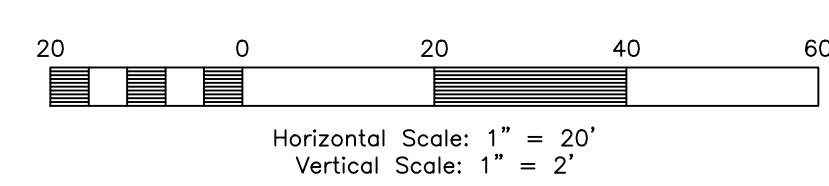
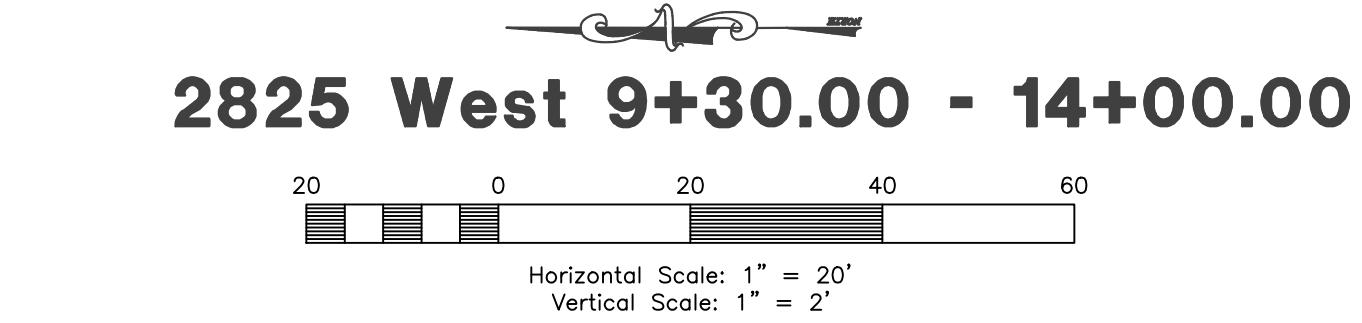
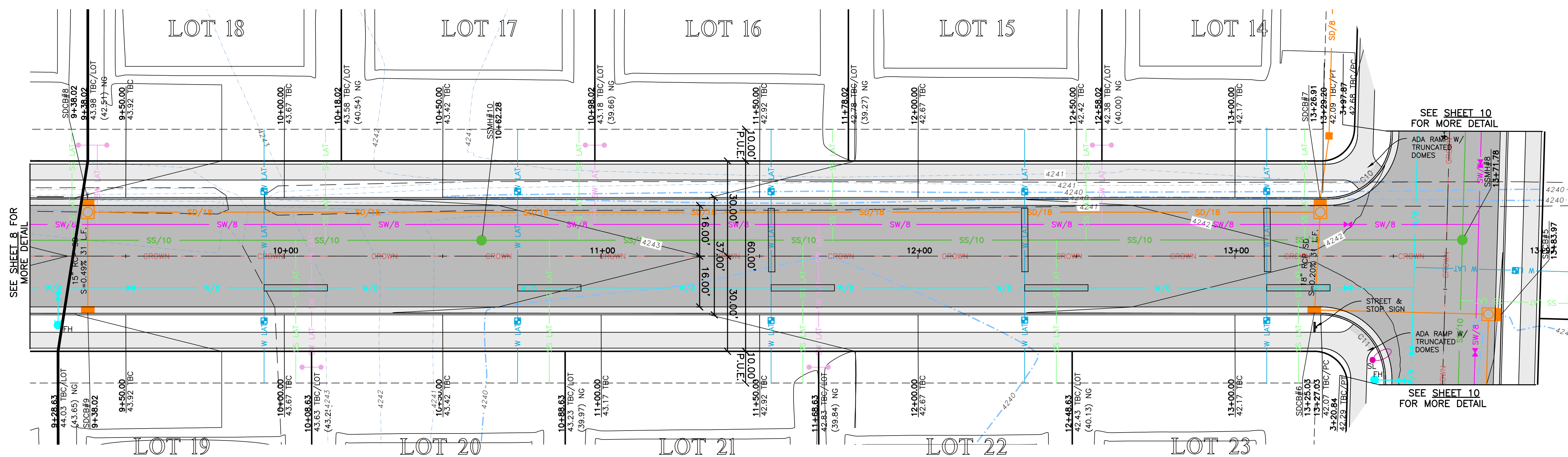
**2825 West 4+50.00 - 9+30.00**



**Project Info.**  
Engineer: J. NATE REEVE, P.E.  
Drafter: N. FICKLIN  
Begin Date: MARCH 2022  
Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
Number: 7152-14

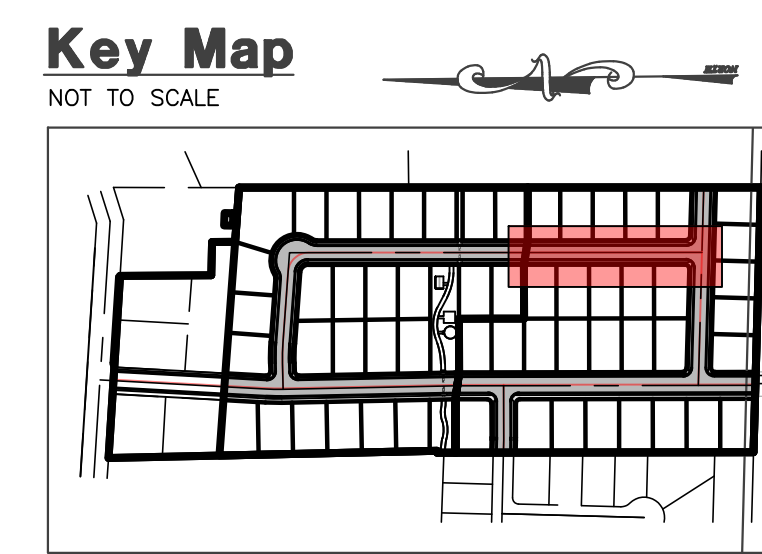






**TBC Curve Data**

#	Delta	Radius	Length	Tangent	Chord	CH Length
C10	88°23'30"	20.00'	30.85'	19.45'	S44°13'27"E	27.88'
C11	91°36'30"	20.00'	31.98'	20.57'	N45°46'33"E	28.68'



- Construction Notes:**
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 NOTE: 4' MIN. COVER REQUIRED OVER CW LINES  
 W/8 - 8" DIP W/POLY WRAP WATER LINE  
 W LAT - 1" TYPE K COPPER SERVICE LATERAL
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 SS/10 - 10" PVC SDR-35 SEWER LINE  
 SS/12 - 12" PVC SDR-35 SEWER LINE  
 SS LAT - 4" PVC SDR-35 SERVICE LATERAL
- STORM DRAIN**  
 SD/30 - 30" RCP CLASS III STORM DRAIN  
 SD/24 - 24" RCP CLASS III STORM DRAIN  
 SD/18 - 18" RCP CLASS III STORM DRAIN  
 SD/15 - 15" RCP CLASS III STORM DRAIN  
 SD/8 - 8" PVC YARD DRAIN  
 SD/6 - 6" PVC YARD DRAIN
- SECONDARY WATER**  
 SW/8 - 8" PVC C-900 DR-14 SECONDARY WATER LINE  
 SW LAT - 1" SERVICE LATERAL W/ 1" METER (SINGLE SERVICE)  
 SW LAT - 1.5" SERVICE LATERAL W/ 1" METER (DOUBLE SERVICE)

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**RA**

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**REVISIONS**

DATE	DESCRIPTION
06.28.23	NF J-U-B Comments
09.20.23	NF Lot Numbers

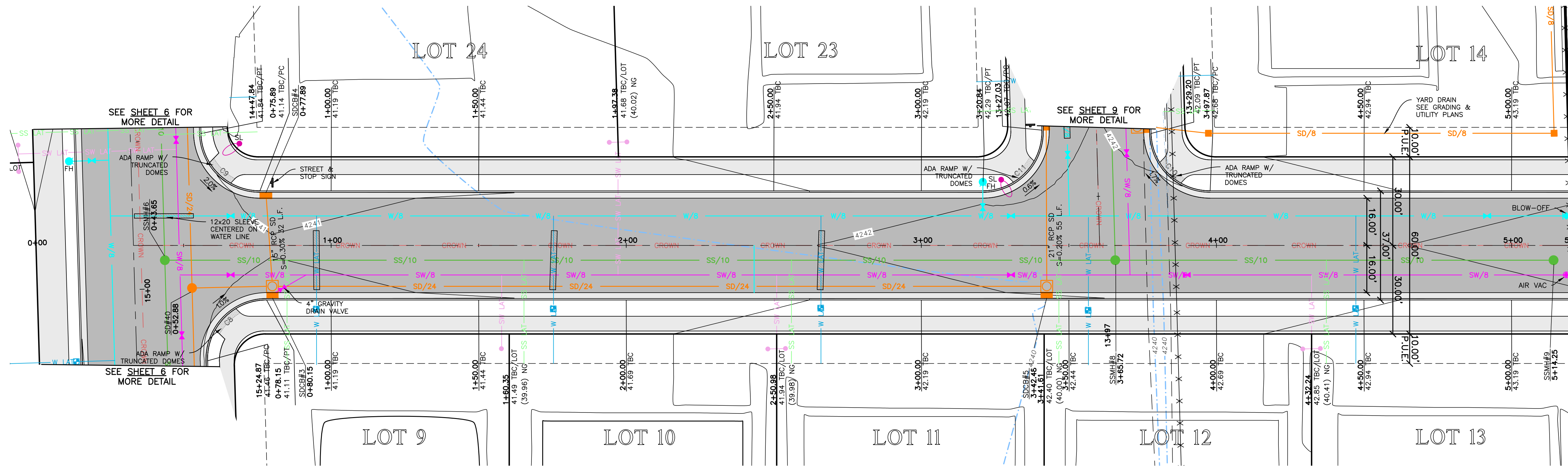
**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
 WEBER COUNTY, UTAH

**2825 West 9+30.00 - 14+00.00**

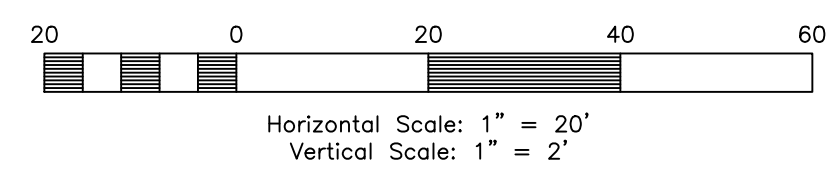


**Project Info.**  
 Engineer: J. NATE REEVE, P.E.  
 Drafter: N. FICKLIN  
 Begin Date: MARCH 2022  
 Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
 Number: 7152-14

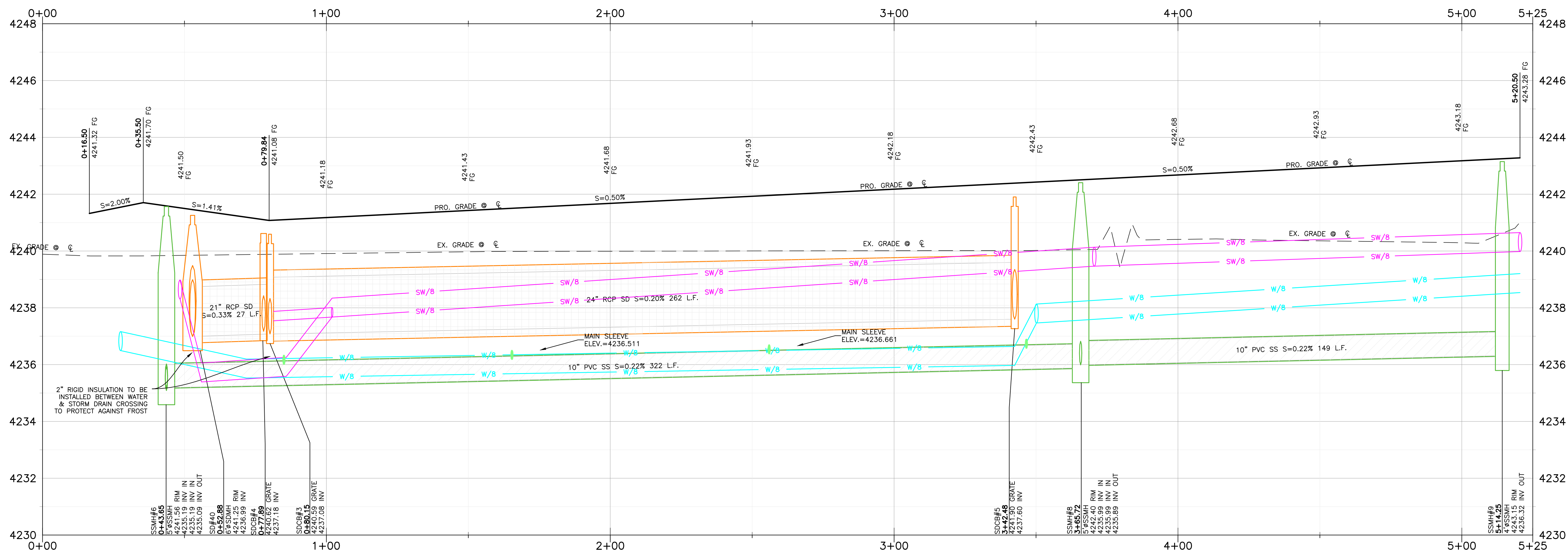




### 3050 North 0+00.00 - 4+50.00

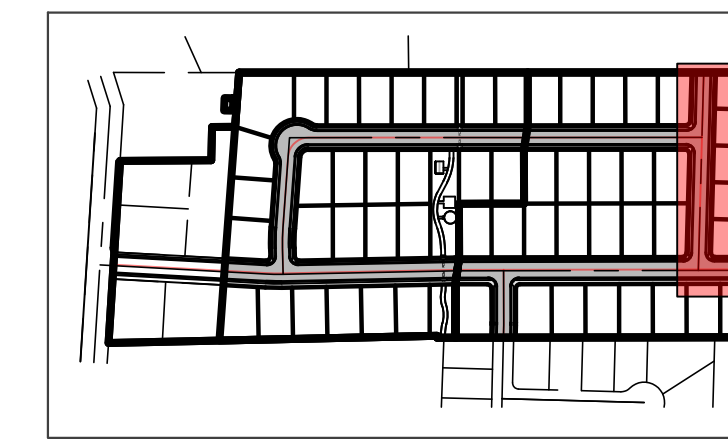


TBC Curve Data						
#	Delta	Radius	Length	Tangent	Chord	CH Length
C8	91°40'32"	20.00'	32.00'	20.59'	S45°44'32"W	28.69'
C9	88°19'28"	20.00'	30.83'	19.42'	S44°15'28"E	27.87'
C10	88°23'30"	20.00'	30.85'	19.45'	S44°13'27"E	27.88'
C11	91°36'30"	20.00'	31.98'	20.57'	N45°46'33"E	28.68'



### Key Map

NOT TO SCALE



### Construction Notes:

- CULINARY WATER**  
NOTE: 4' MIN. COVER REQUIRED OVER CW LINES  
W/8 - 8" DIP W/POLY WRAP WATER LINE  
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- SANITARY SEWER**  
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SD/8 - 8" PVC YARD DRAIN  
SD/6 - 6" PVC YARD DRAIN
- SECONDARY WATER**  
SW/8 - 8" PVC C-900 DR-14 SECONDARY WATER LINE  
SW LAT - 1" SERVICE LATERAL W/ 1" METER (SINGLE SERVICE)  
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REVISIONS	DESCRIPTION
DATE	06.28.23 JF J-U-B Comments
DATE	09.20.23 NF Lot Numbers

**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
WEBER COUNTY, UTAH

**3050 North 0+00.00 - 4+50.00**

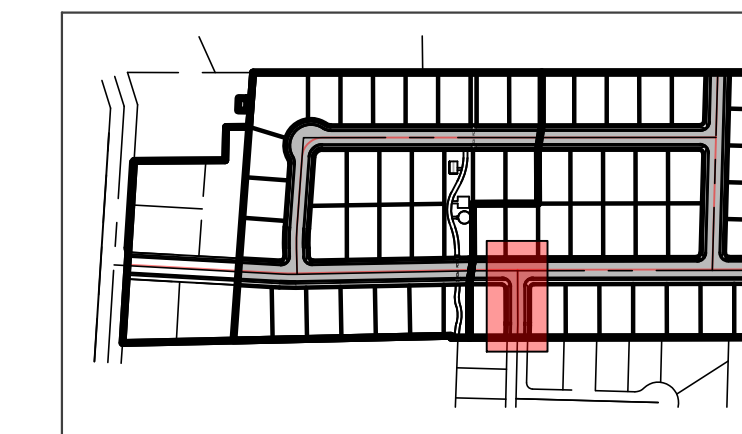


**Project Info.**  
Engineer: J. NATE REEVE, P.E.  
Draftsman: N. FICKLIN  
Begin Date: MARCH 2022  
Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
Number: 7152-14



**Key Map**

NOT TO SCALE



**Construction Notes:**

**CULINARY WATER**

NOTE: 4" MIN. COVER REQUIRED OVER CW LINES  
 W/8 - 8" DIP W/POLY WRAP WATER LINE  
 W LAT - 1" TYPE K COPPER SERVICE LATERAL

**SANITARY SEWER**

SS/10 - 10" PVC SDR-35 SEWER LINE  
 SS/12 - 12" PVC SDR-35 SEWER LINE  
 SS LAT - 4" PVC SDR-35 SERVICE LATERAL

**STORM DRAIN**

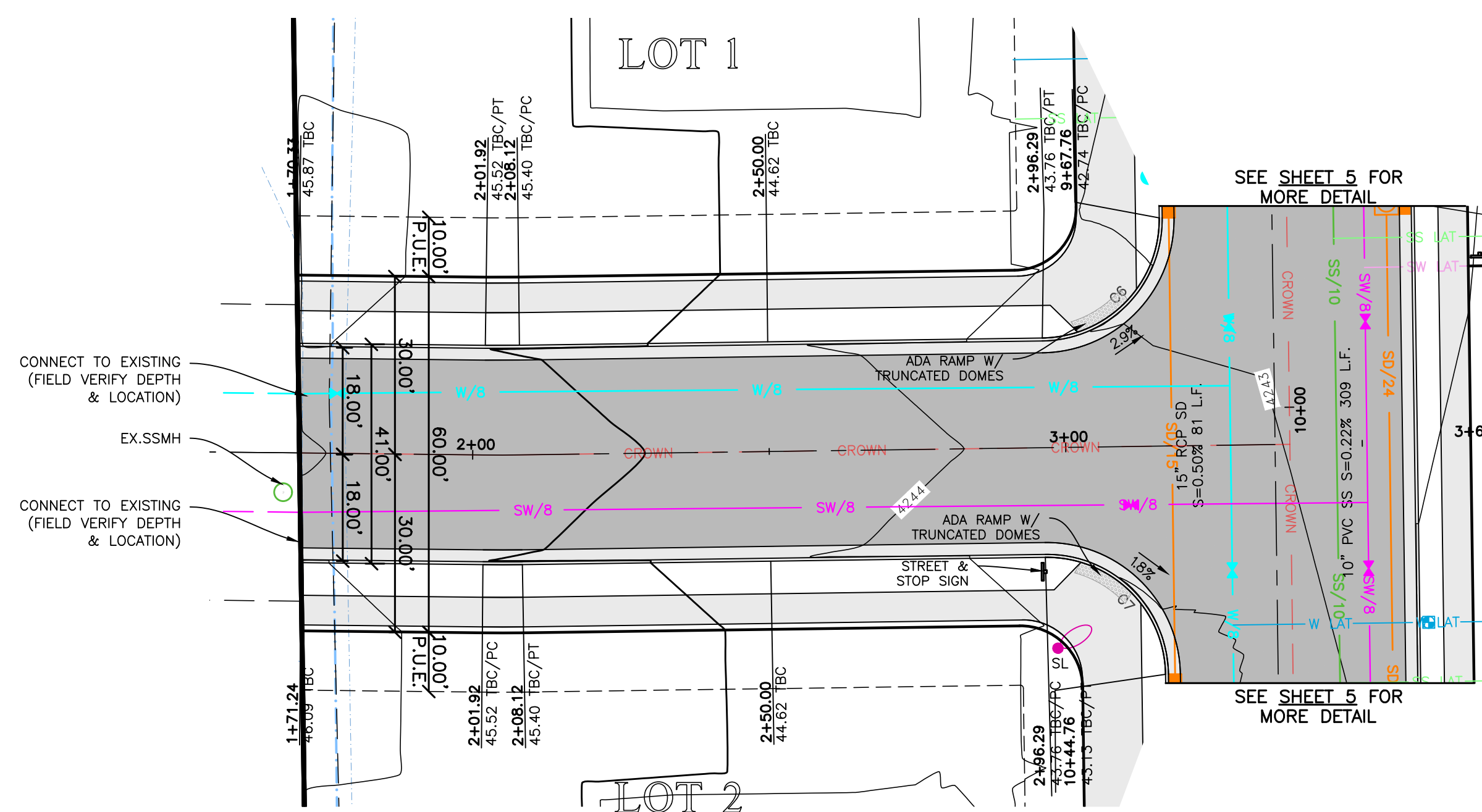
SD/30 - 30" RCP CLASS III STORM DRAIN  
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 SD/18 - 18" RCP CLASS III STORM DRAIN  
 SD/15 - 15" RCP CLASS III STORM DRAIN  
 SD/8 - 8" PVC YARD DRAIN  
 SD/6 - 6" PVC YARD DRAIN

**SECONDARY WATER**

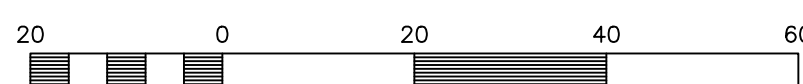
SW/8 - 8" PVC C-900 DR-14 SECONDARY  
 WATER LINE  
 SW LAT - 1" SERVICE LATERAL W/ 1" METER  
 (SINGLE SERVICE)  
 SW LAT - 1.5" SERVICE LATERAL W/ 1" METER  
 (DOUBLE SERVICE)

**NOTE:**

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12. LOCATIONS WHERE 18" VERTICAL SEPARATIONS FOR SEWER & CULINARY WATER LINES CAN NOT BE MAINTAINED, WATER LATERALS TO SLEEVED WITH 6"x18" AT CROSSING.



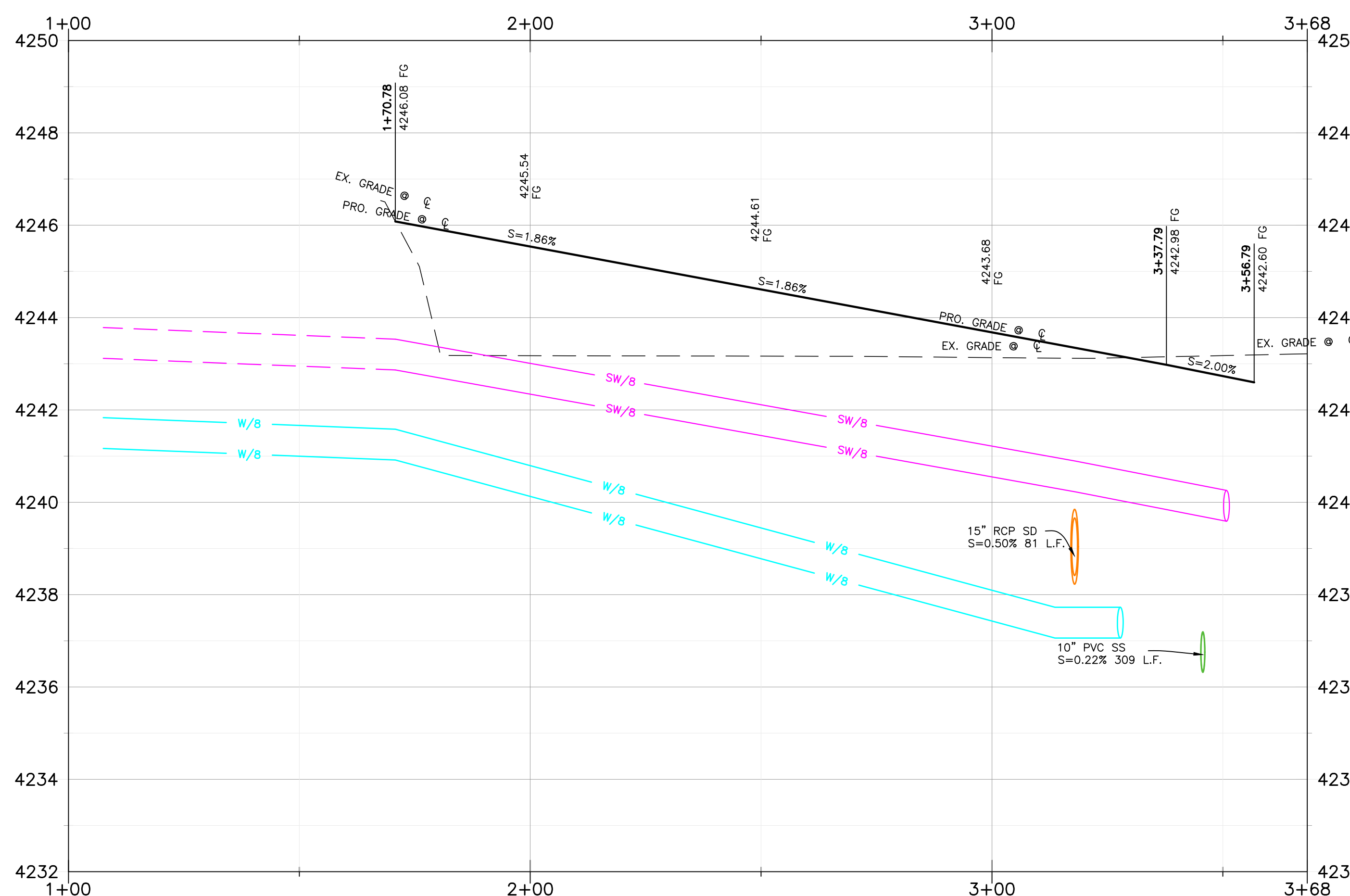
**3150 North Street  
 1+00.00 - 3+68.29**



Horizontal Scale: 1" = 20'  
 Vertical Scale: 1" = 2'

**TBC Curve Data**

#	Delta	Radius	Length	Tangent	Chord	CH Length
C6	90°00'00"	20.00'	31.42'	20.00'	N44°54'16"E	28.28'
C7	90°00'00"	20.00'	31.42'	20.00'	N45°05'44"W	28.28'

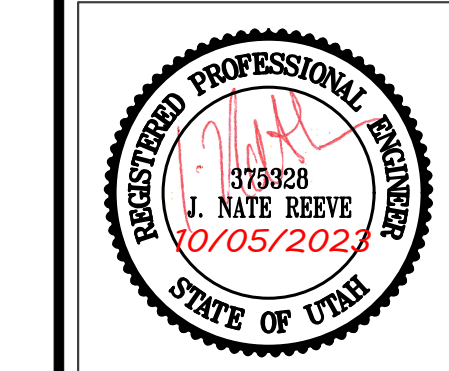


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REVISIONS	DATE	DESCRIPTION
	06.28.23	NE J-U-B Comments
	09.20.23	NE Lot Numbers

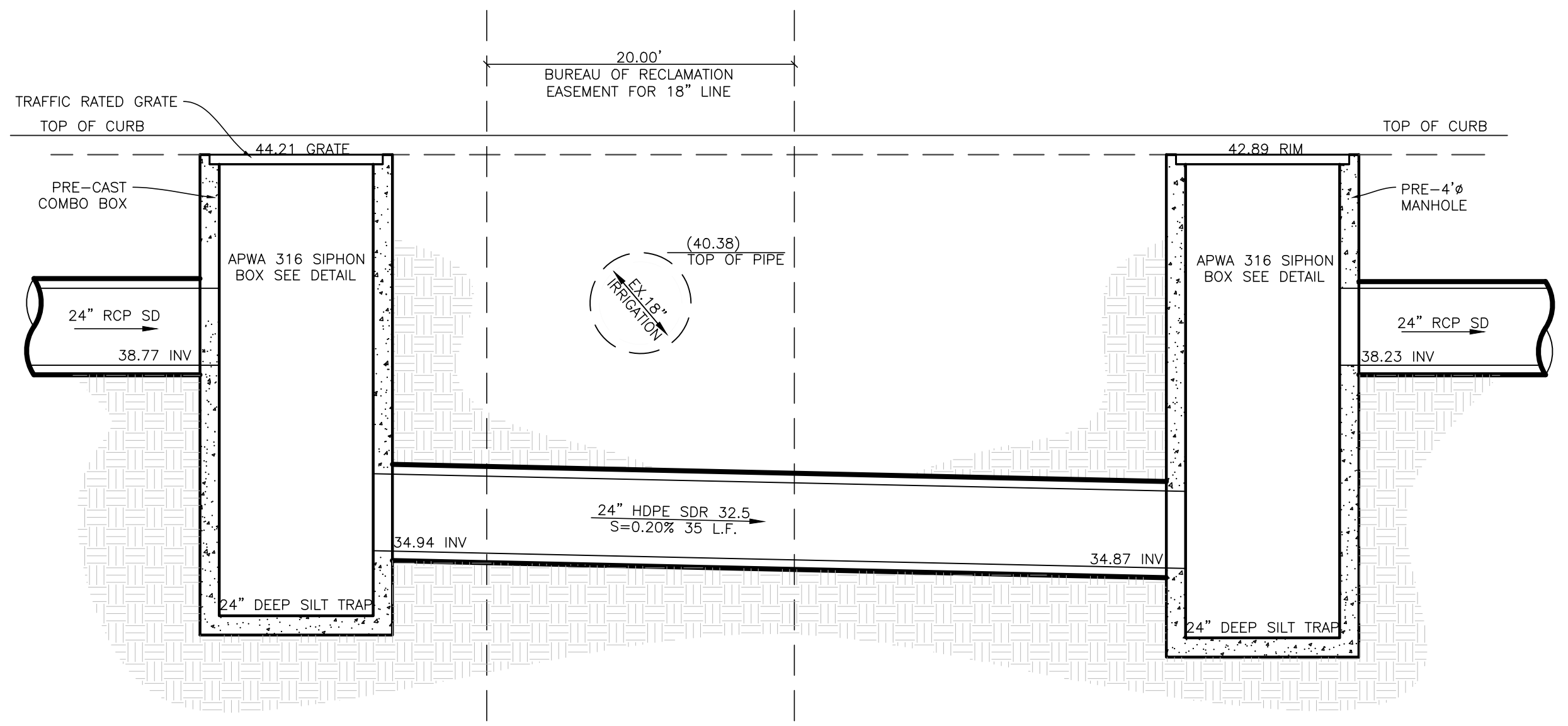
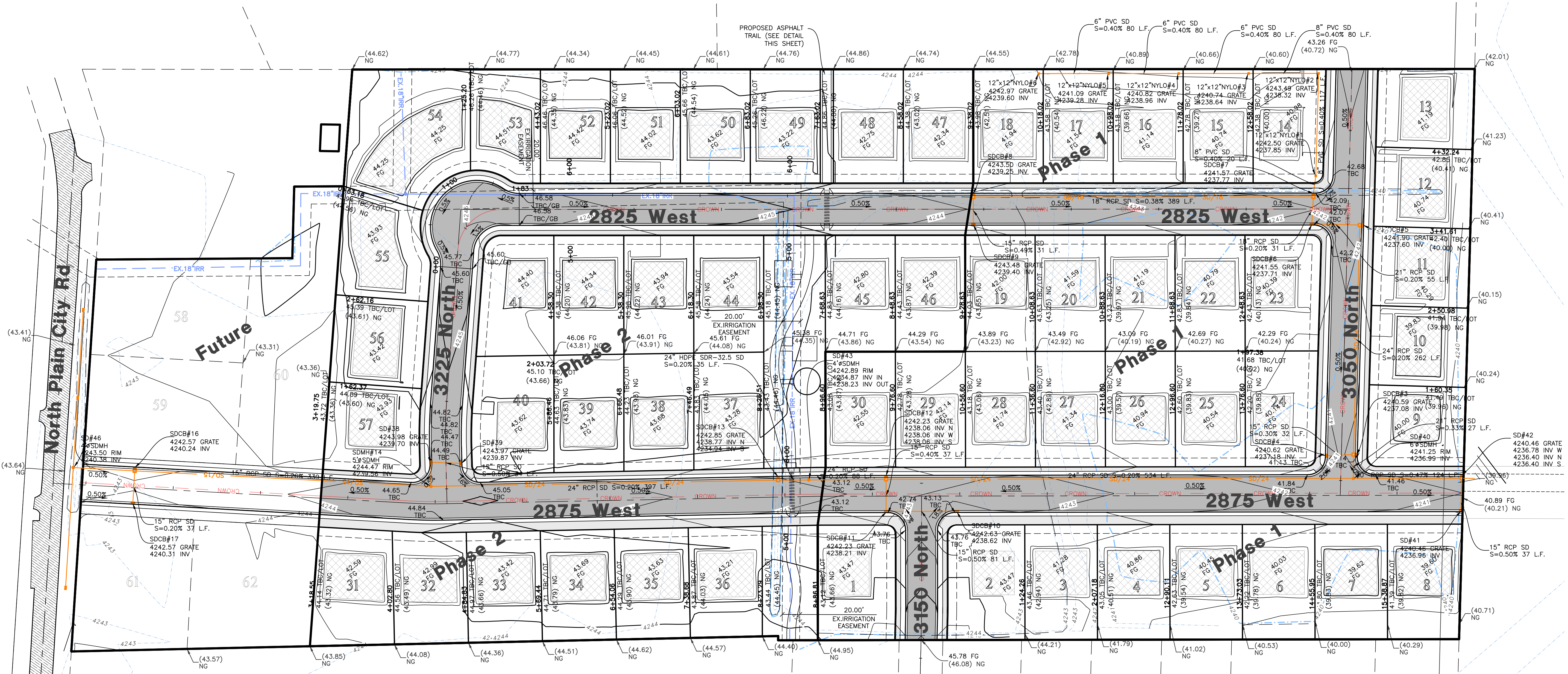
**The Grove at JDC Ranch Subdivision  
 Phase 1 & 2**  
 WEBER COUNTY, UTAH

**3150 North Street 1+00.00 - 3+68.29**

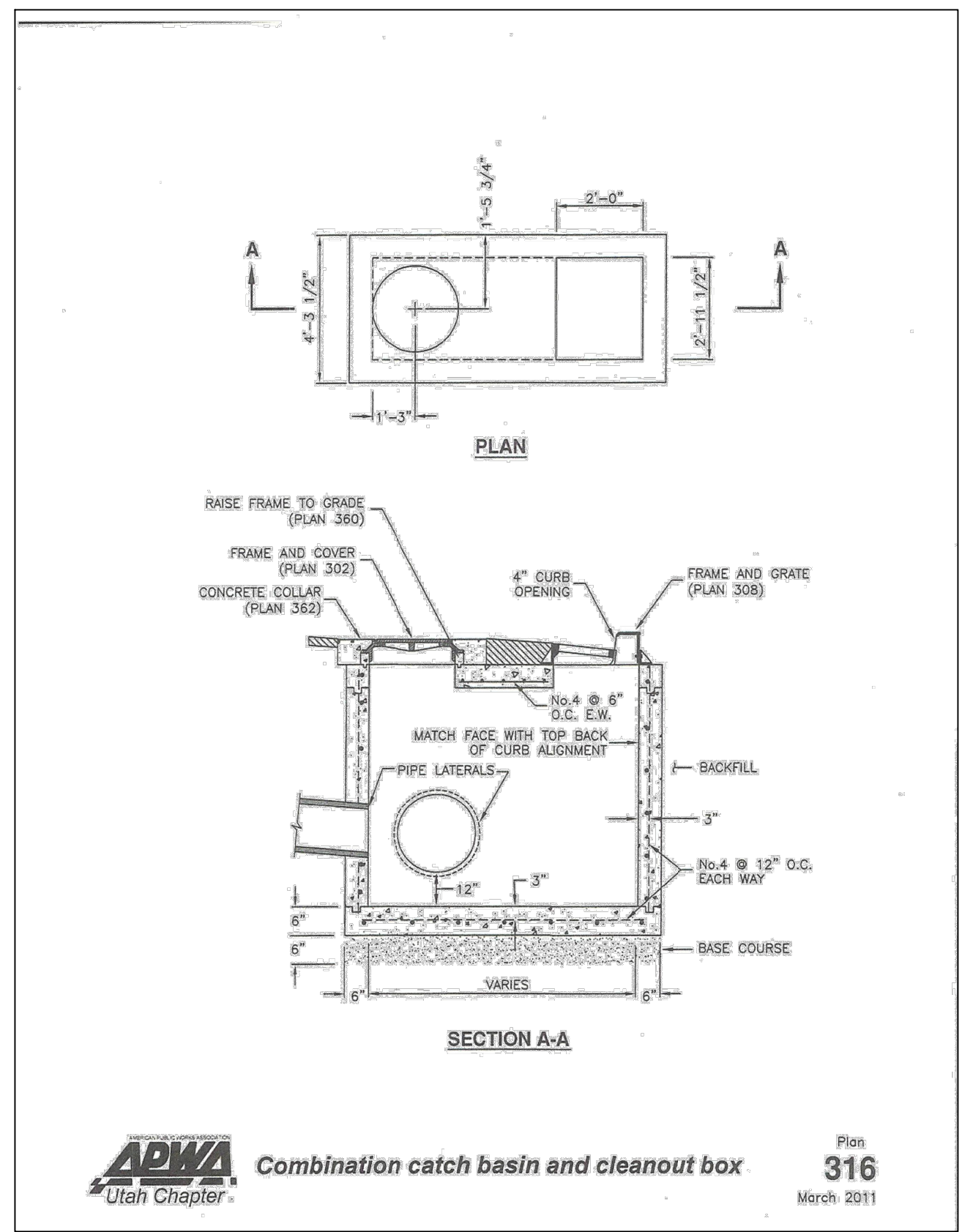


**Project Info.**  
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 Drafter: N. FICKLIN  
 Begin Date: MARCH 2022  
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 Number: 7152-14

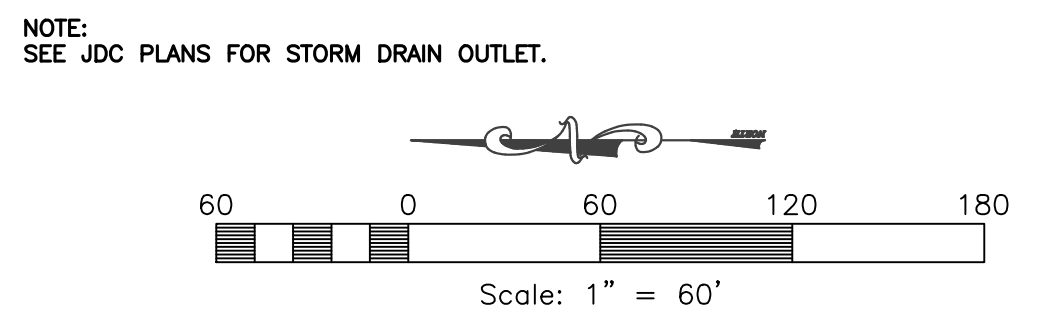




**Storm Drain Siphon Detail**  
SCALE: NONE



**15' Trail Easement Detail**  
SCALE: NONE



**Legend**  
= PROPOSED BASEMENT AREA

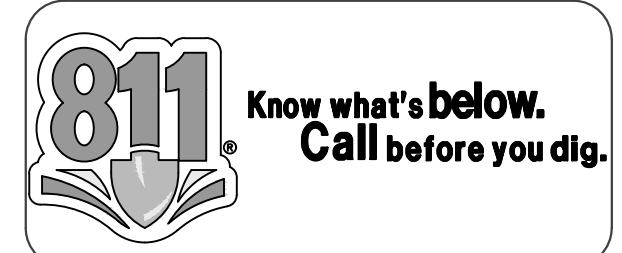
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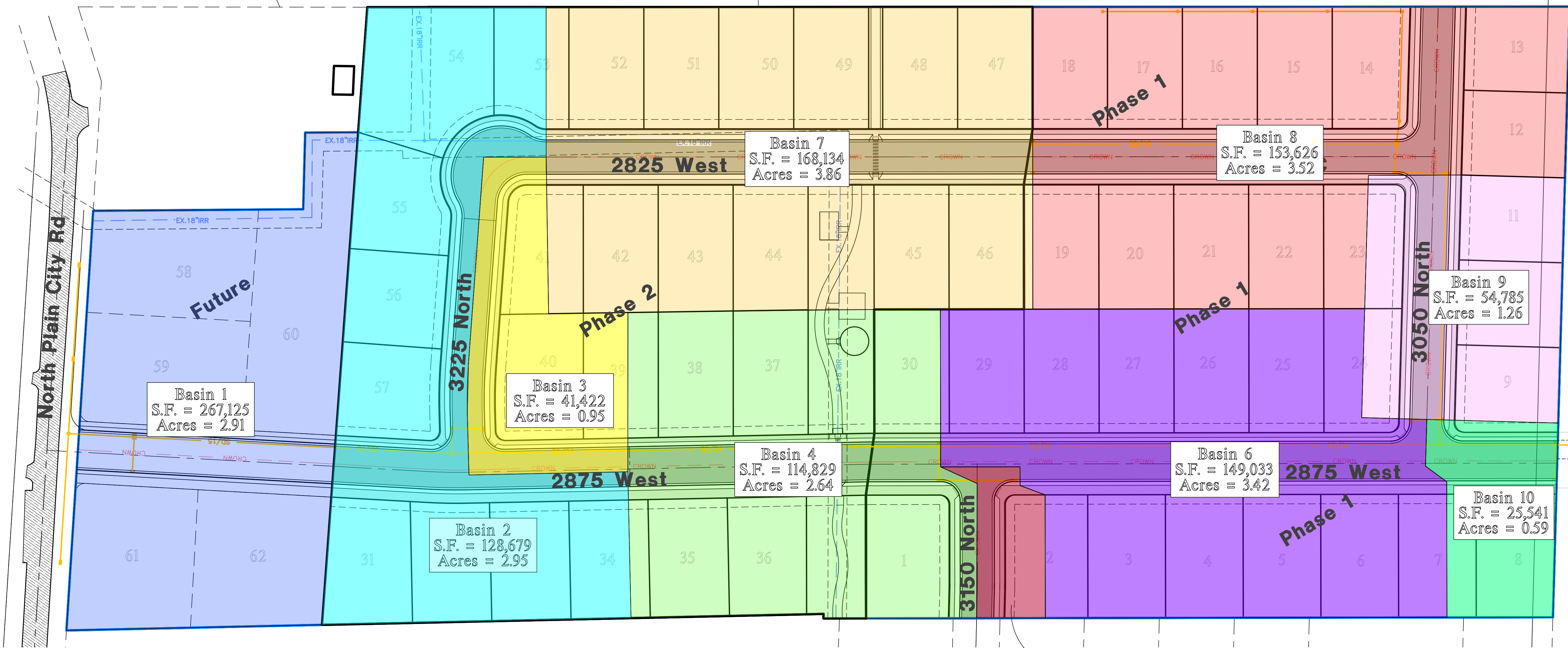
REVISIONS	DATE	DESCRIPTION
06.28.23	06.28.23	09.20.23 NF J-U-B Comments
09.20.23	09.20.23	09.20.23 NF Lot Numbers

**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
WEBER COUNTY, UTAH  
**Grading Plan**



**Project Info.**  
Engineer: J. NATE REEVE, P.E.  
Drafted: N. FICKLIN  
Begin Date: MARCH 2022  
Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
Number: 7152-14





**Storm Runoff Calculations**  
JDC at West Ridge - Phase 1-2  
7152-14 4/20/2023

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Weber County, UT area taken from the NOAA Atlas 14 database. Calculations have been completed for the 100-yr 24-hr storm event. Storm water runoff has been calculated for a fully developed site and full retention, as the stormwater will be conveyed and retained in a temporary basin.

(62 lots)  
The calculations are as follows:

**Drainage Area:**

Total Area	=	22.37 acre or	974,439 ft <sup>2</sup>
Runoff Coefficients			
Paved Area		268,611	C = 0.9
Roof		178,800	C = 0.8
Landscaped Area		526,028	C = 0.2
Weighted Runoff Coefficient			C = 0.52

**LID Retention**

80 <sup>th</sup> Percentile Rainfall Event (d)		0.48 in
Is the site Feasible for LID?	Yes	
Site Imperviousness (I)	0.46	
NCEC Soil Group	A	
Rv Equation	0.84*1.302	
Rv (Soil Group A: 0.84*1.302; B: 0.84*1.169; C/D: 0.83*1.122)	0.31	
V <sub>ret</sub> = Rv x Total Site SF	11,918	c.f.

**Rainfall Intensities:**

10-yr intensity for a 30 minute Storm Event	1.38	in/hr
---	------	-------

**Peak Run-off:**

Runoff Coefficient	C =	0.52
Rainfall Intensity	I =	1.38 IN./HR.
Area	A =	22.37 ACRES
Q	Q =	16.12 cfs

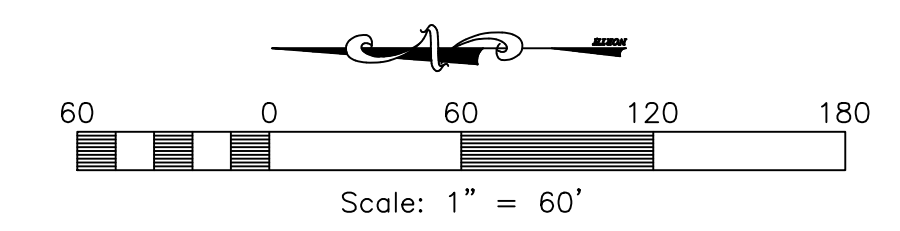
**Cumulative**

Drainage Basin	Area (acres)	Q (cfs) 10-yr	Min Pipe Size
1	2.91	2.10	15
2	2.95	2.21	16
3	0.95	0.81	21
4	2.84	0.81	21
5	0.27	0.70	21
6	3.42	0.47	30
7	3.86	0.78	18
8	3.52	0.32	21
9	1.28	0.23	21
10	0.59	0.12	30

**Volume of Run-off for 100-year Storm Event:**

C =	0.52					
I =	See Below in/hr					
A =	974,439.00 ft <sup>2</sup>					
Q(out) =	0.00 ft <sup>3</sup> /s (full retention)					
time (min)	time (sec)	I (in./hr.)	Q (cfs)	Vol. in (cft)	Vol. out (cft)	Difference (cft)
0	0	0.00	0.00	0	0	0
5	300	0.66	76.32	23496	0	23496
10	600	0.06	59.59	35756	0	35756
15	900	4.18	49.23	44306	0	44306
30	1800	2.81	33.08	69659	0	69659
60	3600	1.74	20.49	73772	0	73772
120	7200	0.96	11.31	81404	0	81404
180	10800	0.66	7.73	83439	0	83439
360	21600	0.366	4.31	93106	0	93106
720	43200	0.223	2.63	113457	0	113457
1440	86400	0.123	1.45	125159	0	125159

**SUMMARY:**  
The required 100-yr storage volume is 125,159 cubic feet  
The required LID Retention volume is 11,918 cubic feet



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**REVISIONS**

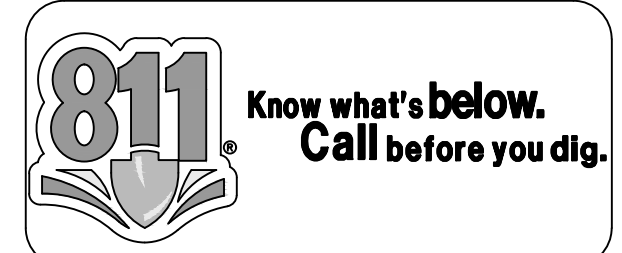
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09.20.23	NE Lot Numbers

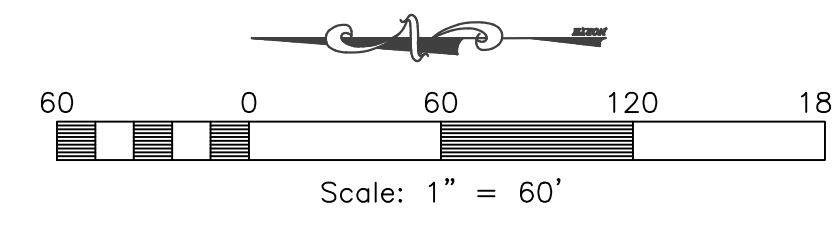
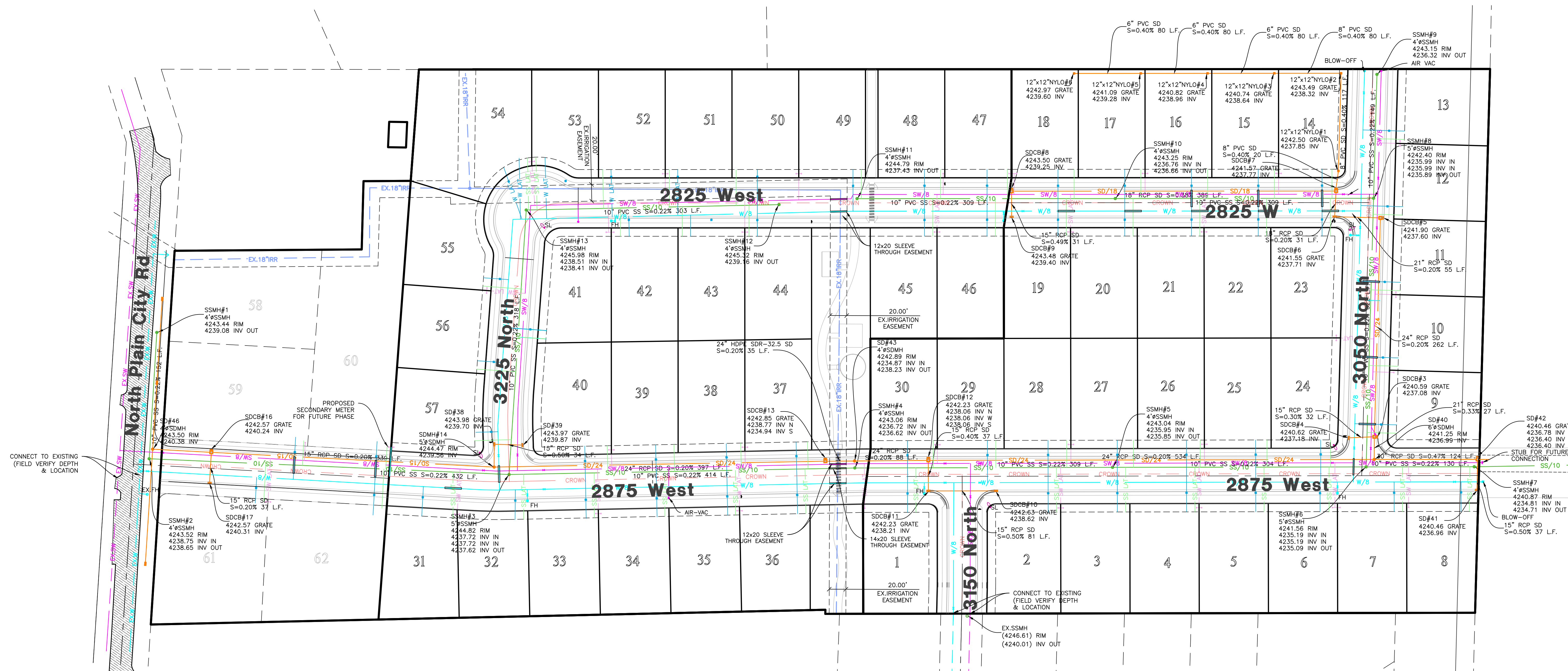
**The Grove at JDC Ranch Subdivision**  
Phase 1 & 2  
WEBER COUNTY, UTAH

**Site Drainage Area Plan**



**Project Info.**  
Engineer: J. NATE REEVE, P.E.  
Drafted: N. FICKLIN  
Begin Date: MARCH 2022  
Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
Number: 7152-14





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**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
 WEBER COUNTY, UTAH

**Utility Plan**



**Project Info.**  
 Engineer: J. NATE REEVE, P.E.  
 Drafter: N. FICKLIN  
 Begin Date: MARCH 2022  
 Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
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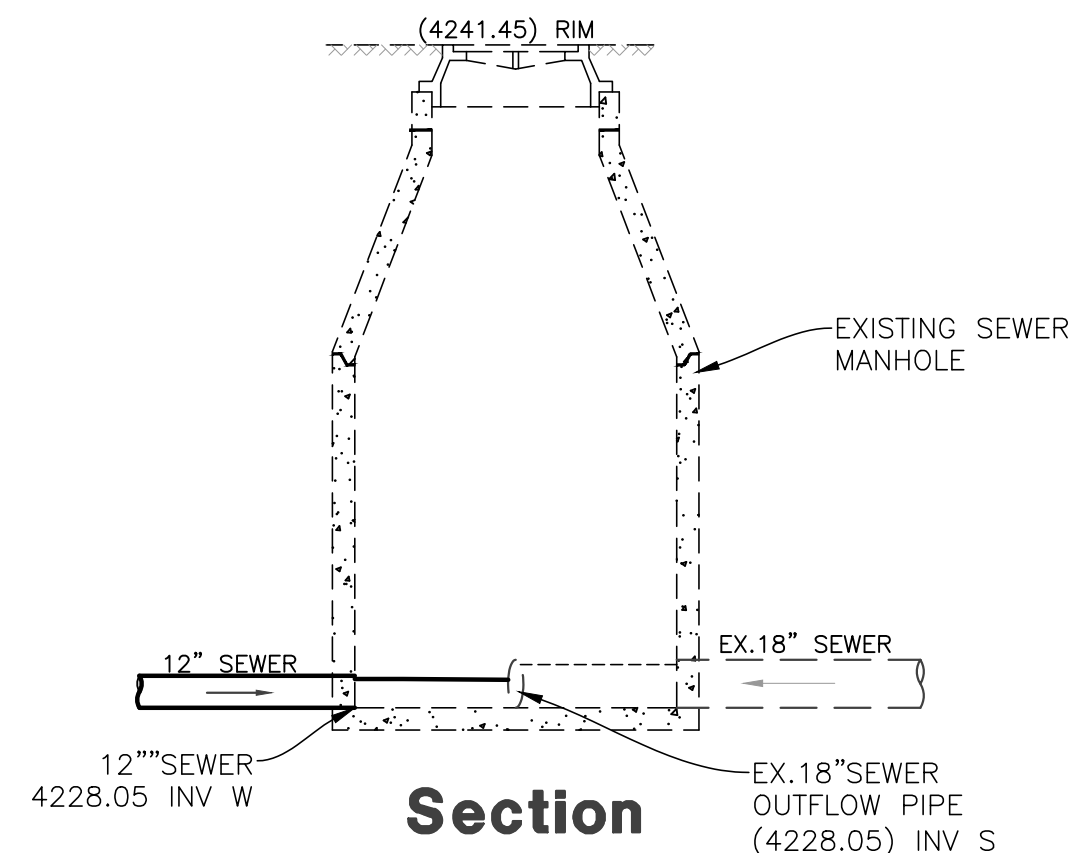
**Notice:**  
 THESE PLANS WERE CREATED UTILIZING COLORS FOR UTILITIES & OTHER INFRASTRUCTURE. IF PRINTED IN, OR COPIED TO BLACK & WHITE, SOME LINE WORK MAY NOT SHOW UP PROPERLY.



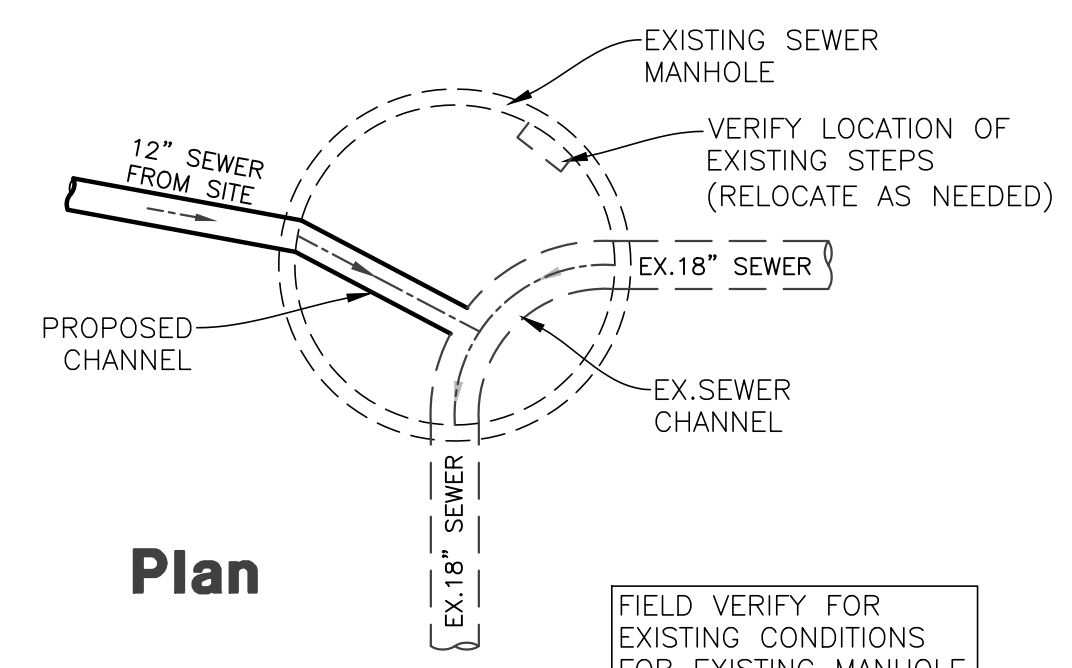


Future Development (By Others)

Future Development (By Others)



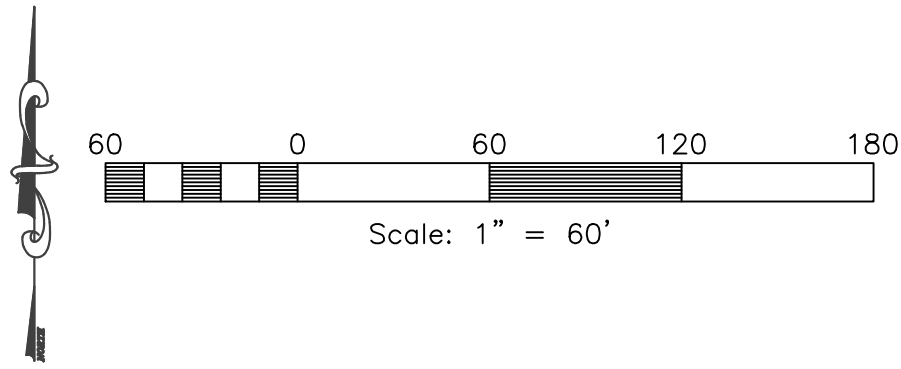
Section



Plan

**Existing Sewer Manhole Connection**  
SCALE: NONE

NOTE:  
CONTRACTOR TO BY PASS EXISTING SEWER DURING CONSTRUCTION.



NOTE:  
1. FINAL RIM ELEVATION FOR SSMH#14-23, TO BE SET DURING DEVELOPMENT OF FUTURE SUBDIVISION IMPROVEMENT PLANS.  
2. CONTRACTOR TO BY PASS EXISTING SEWER DURING CONSTRUCTION.

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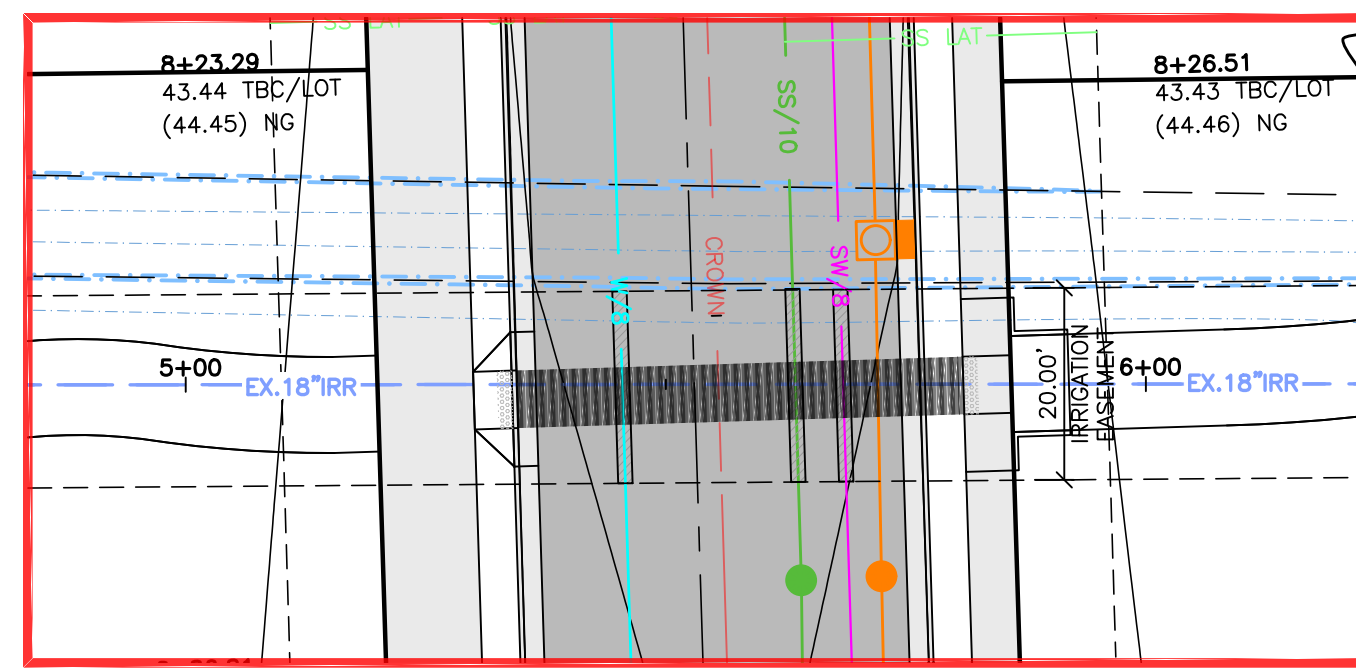
**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
WEBER COUNTY, UTAH

**Sewer Outfall**

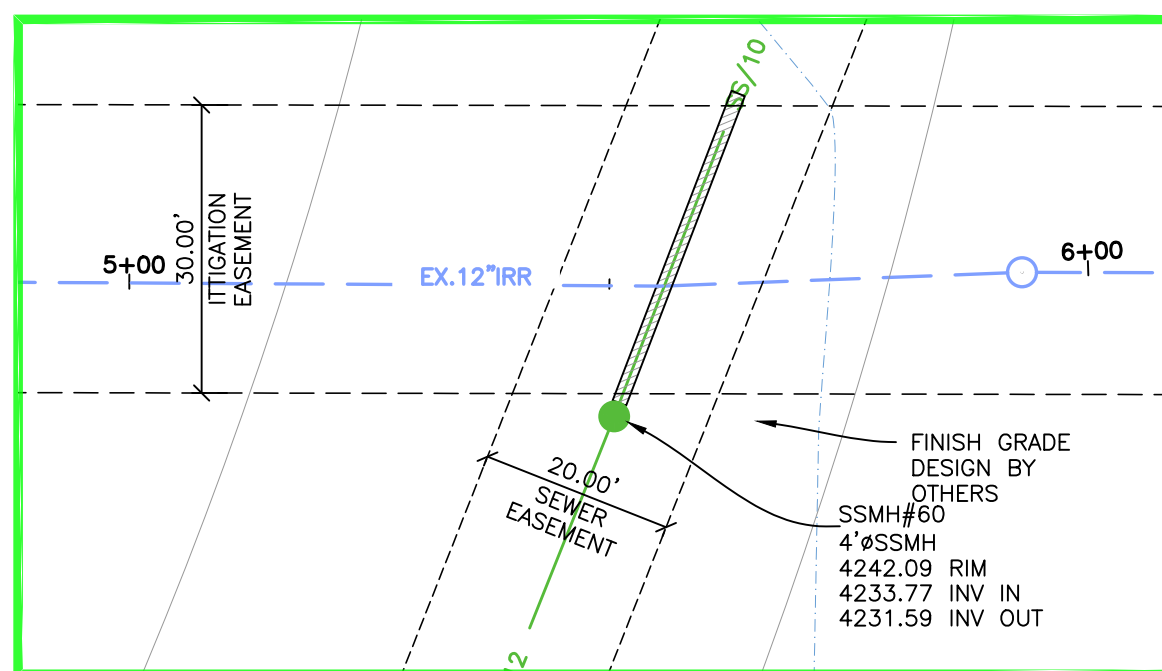
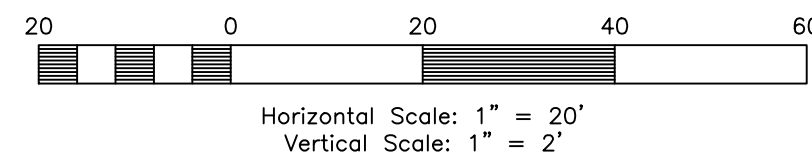
REGISTERED PROFESSIONAL ENGINEER  
375328  
J. NATE REEVE  
10/05/2023  
STATE OF UTAH

**Project Info.**

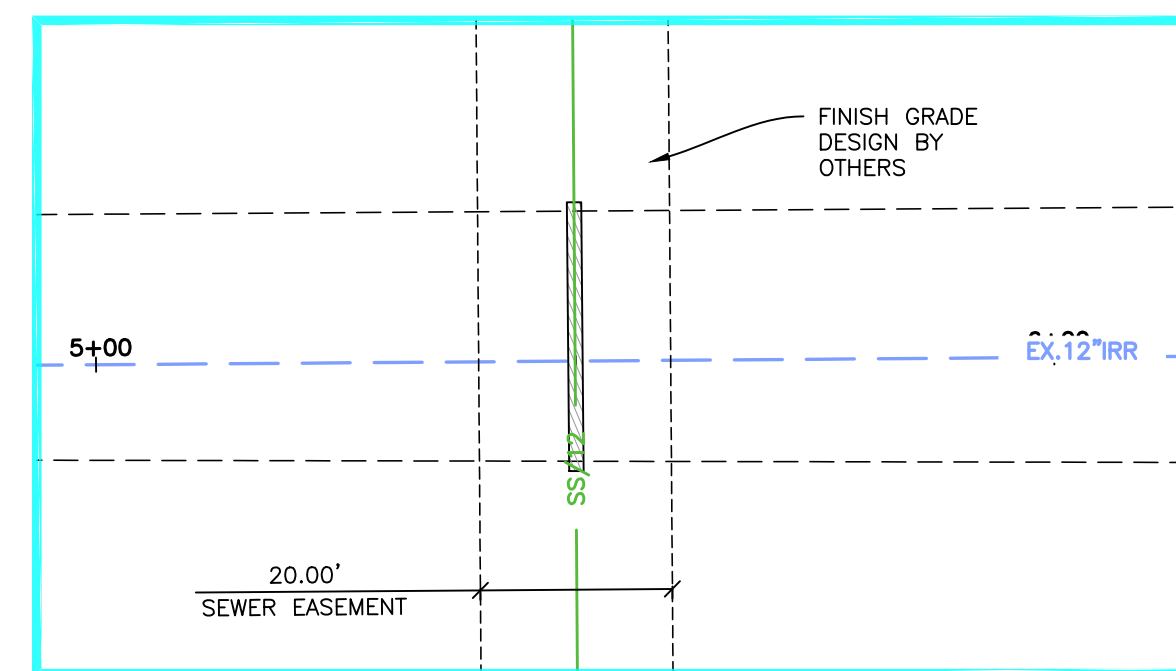
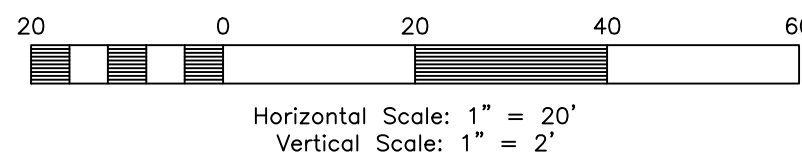
Engineer: J. NATE REEVE, P.E.  
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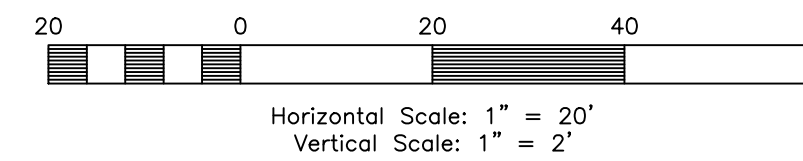
### 2875 W Crossing



### Outfall Crossing 1

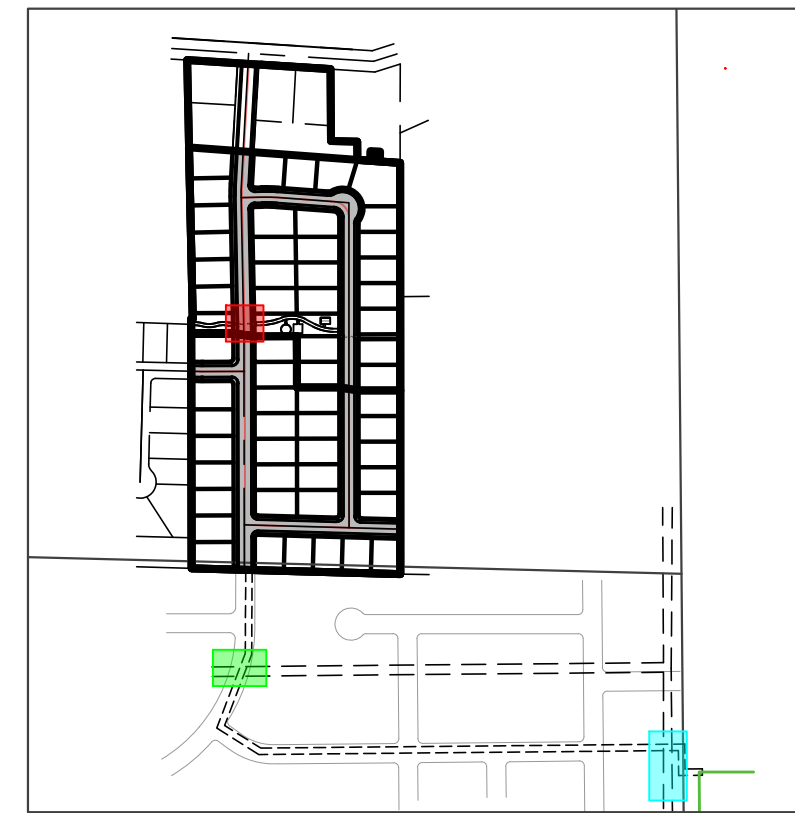


### Outfall Crossing 2



### Key Map

NOT TO SCALE



### Construction Notes:

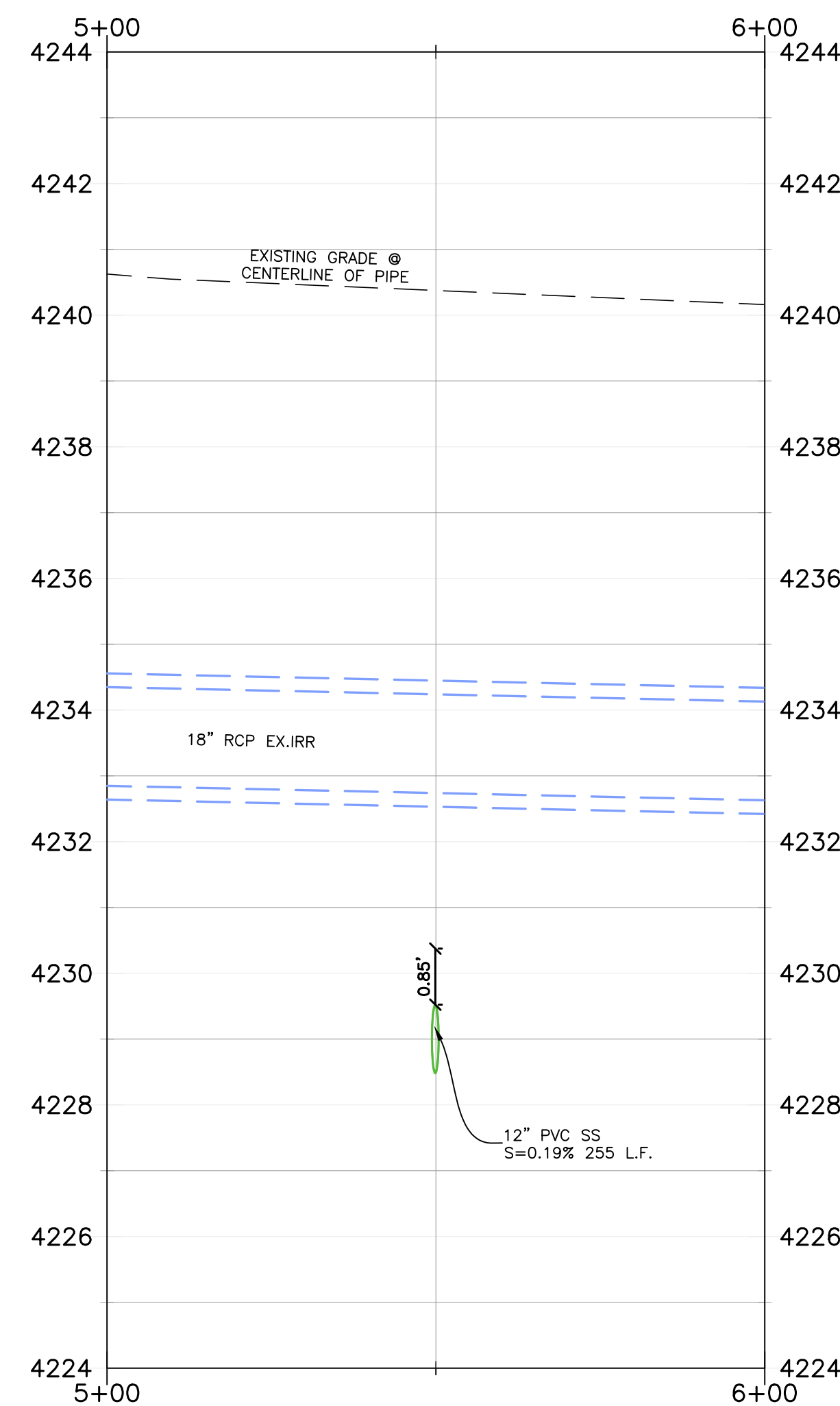
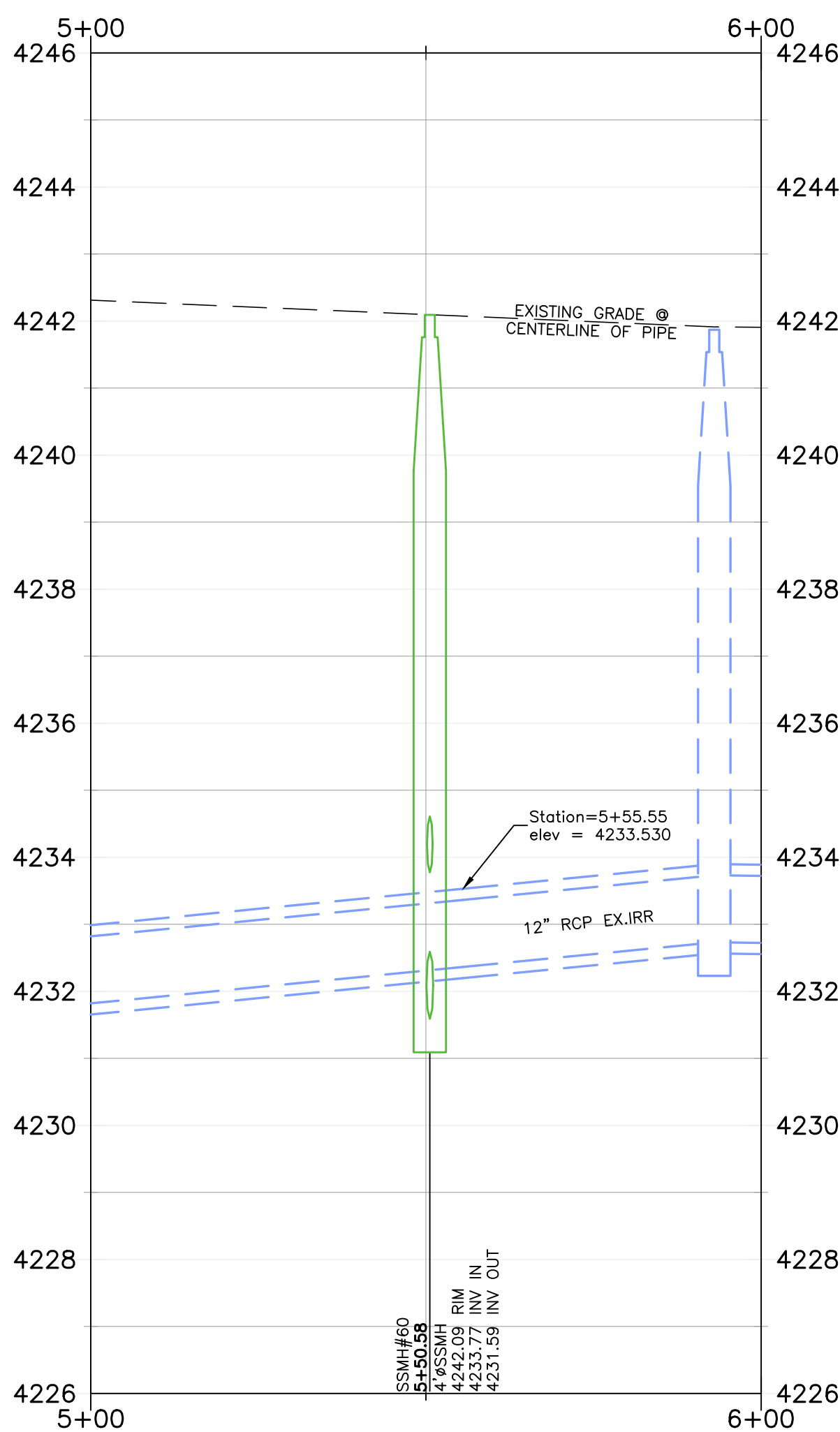
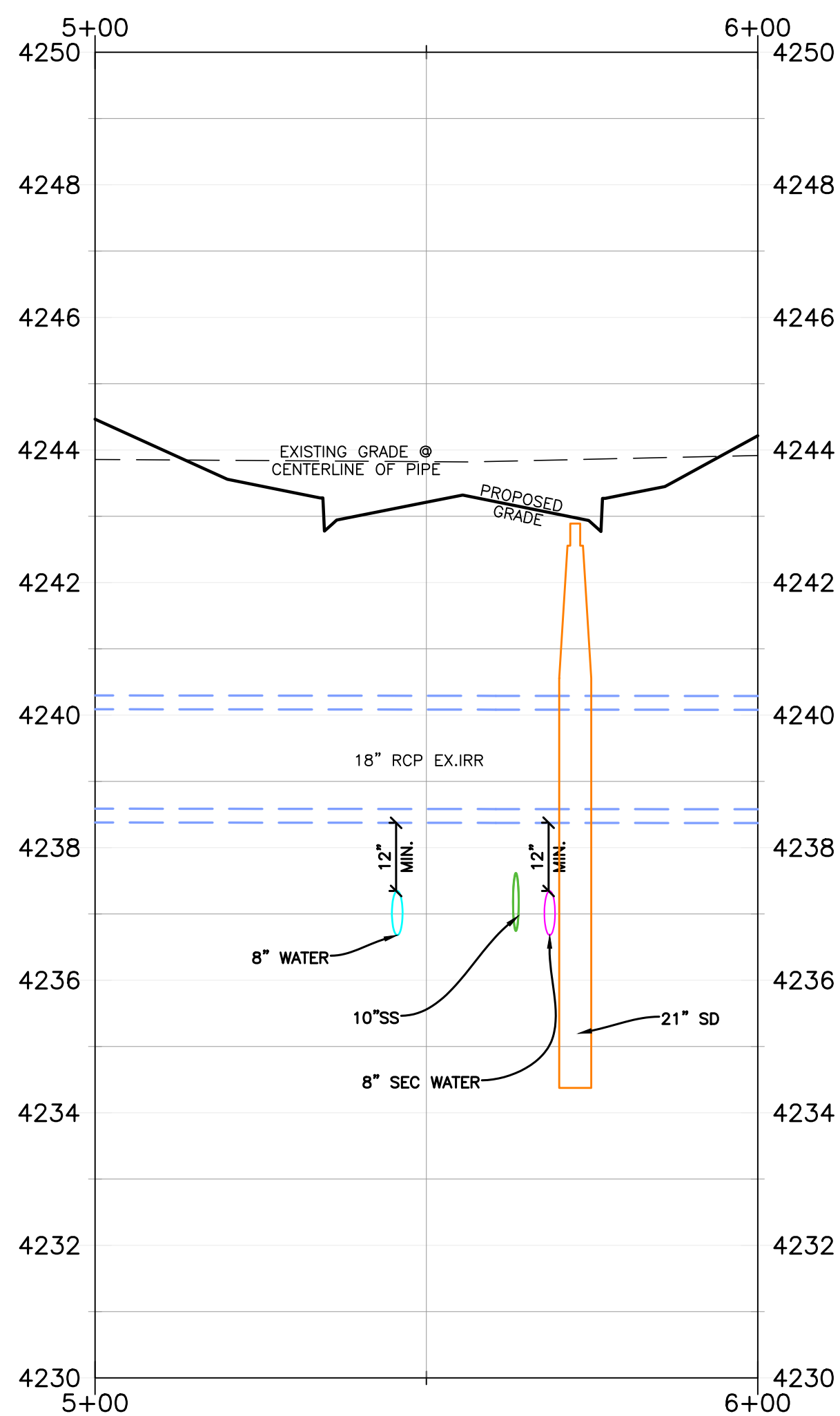
**CULINARY WATER**  
NOTE: 4' MIN. COVER REQUIRED OVER CW LINES  
W/8 - 8" DIP W/POLY WRAP WATER LINE  
W/LAT - 1" TYPE K COPPER SERVICE LATERAL

**SANITARY SEWER**  
SS/10 - 10" PVC SDR-35 SEWER LINE  
SS/12 - 12" PVC SDR-35 SEWER LINE  
SS/LAT - 4" PVC SDR-35 SERVICE LATERAL

**STORM DRAIN**  
SD/30 - 30" RCP CLASS III STORM DRAIN  
SD/24 - 24" RCP CLASS III STORM DRAIN  
SD/18 - 18" RCP CLASS III STORM DRAIN  
SD/15 - 15" RCP CLASS III STORM DRAIN  
SD/8 - 8" PVC YARD DRAIN  
SD/6 - 6" PVC YARD DRAIN

**SECONDARY WATER**  
SW/8 - 8" PVC C-900 DR-14 SECONDARY WATER LINE  
SW/LAT - 1" SERVICE LATERAL W/ 1" METER (SINGLE SERVICE)  
SW/LAT - 1.5" SERVICE LATERAL W/ 1" METER (DOUBLE SERVICE)

- NOTE:**
- ALL CONSTRUCTION IS TO CONFORM TO THE CITY STANDARD DRAWINGS AND SPECIFICATIONS.
  - CONSTRUCT HANDICAP RAMP PER ADA AND CITY REQUIREMENTS.
  - PROVIDE 18" CLEARANCE FOR LATERALS OVER SEWER.
  - DEPTH OF WATER TO BE 4' MIN. BELOW FINISHED GRADE.
  - CULINARY WATER TO BE INSTALLED PER BONA VISTA STANDARDS.
  - ALL EXISTING DITCHES THAT ARE BEING FILLED IN, MUST HAVE STRUCTURAL FILL IN ALL RIGHT-OF-WAY AND BUILDING FOOTPRINTS.
  - PVC SLEEVES TO BE INSTALLED UNDER PATHWAY FOR SPRINKLER USE.
  - CONTRACTOR TO INSTALL ALL SLEEVES AS REQUIRED FOR THE RESIDENTIAL DEVELOPMENT.
  - FOR ELECTRICITY CONDUITS COORDINATE WITH ROCKY MOUNTAIN POWER.
  - CONTRACTOR TO INSTALL CONDUITS FROM TRANSFORMER TO LIGHT LOCATIONS WITH JUNCTION BOXES AS NEEDED TO BE USED TO POWER STREET LIGHTS.
  - LOCATION WHERE 18" VERTICAL SEPARATION FOR WATER CROSSING SEWER MAINS CAN NOT BE MAINTAINED, WATER MAINS MUST BE SLEEVED WITH 12"x20" CENTERED AT CROSSING.
  - LOCATIONS WHERE 18" VERTICAL SEPARATIONS FOR SEWER & CULINARY WATER LINES CAN NOT BE MAINTAINED, WATER LATERALS TO SLEEVED WITH 6"x18" AT CROSSING.



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## The Grove at JDC Ranch Subdivision Phase 1 & 2

WEBER COUNTY, UTAH

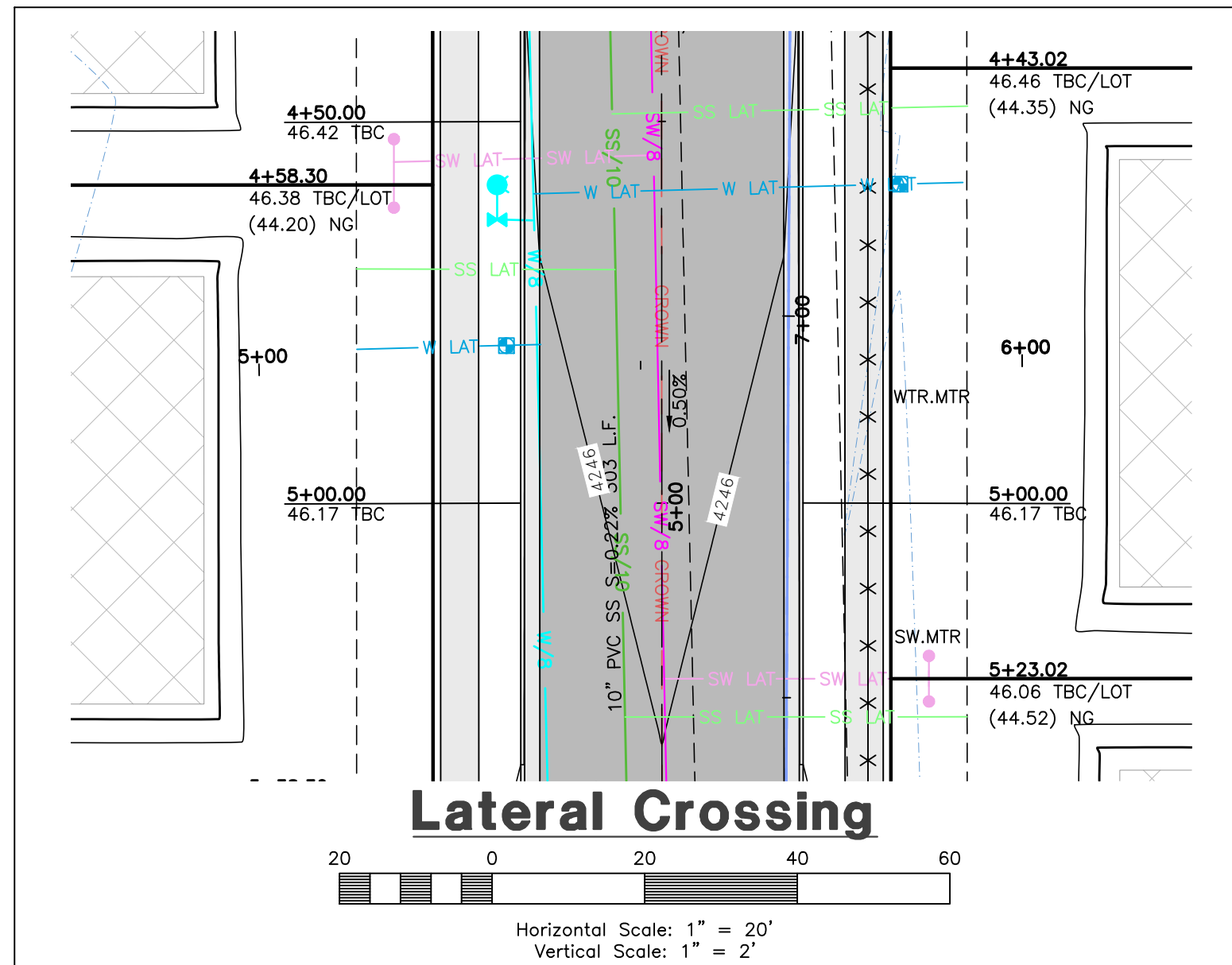
## Sewer & Land Drain Cross Sections



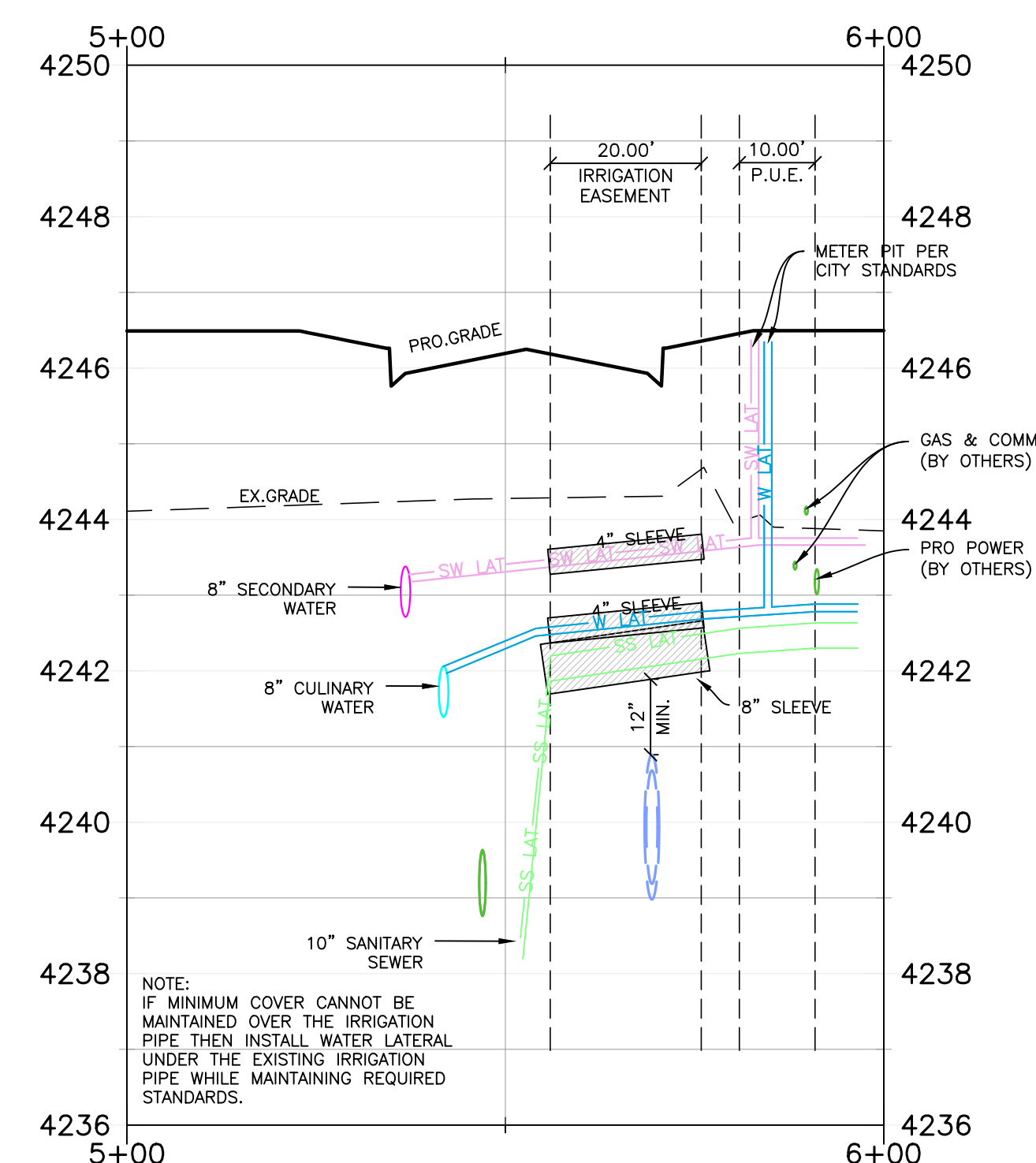
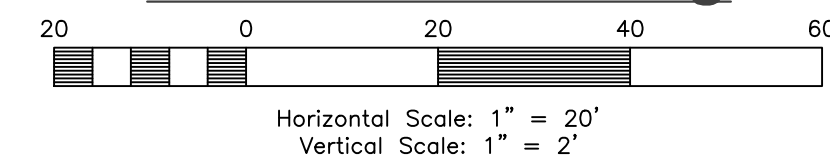
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**Lateral Crossing**



- NOTES:**
1. WATER LATERALS TO BE INSULATED WHEN CROSSING OVER EXISTING IRRIGATION IF COVER OVER TOP OF PIPE IS LESS THAN 4' TO PROTECT PIPE FROM FREEZING.
  2. INSULATION TO EXTEND MIN 12" BEYOND.
  3. WATER LATERALS TO MAINTAIN 12" MINIMUM SEPARATION WHEN CROSSING UNDER EXISTING IRRIGATION.
  4. ALL 1" & 1/2" UTILITY CROSSING TO BE INCASED WITH SCHEDULE 40 PVC PIPE.

**EXHIBIT "A"**  
**PROTECTION CRITERIA**

- A. Surface structures that generally will be allowed to be constructed within United States rights-of-way include asphalt roadways, with no utilities within roadway, non reinforced parking lots, curbs, gutters and sidewalks, walkways, driveways. However, where United States system pipe has specific maximum and minimum cover designation the special requirements for roadways, parking lots and driveways crossing over the pipe shall be obtained from the United States for the maximum allowable external loading or minimum cover. **HOWEVER, IT IS UNDERSTOOD THAT ALL SURFACE STRUCTURES SHALL BE ANALYZED AND CONSIDERED ON AN INDIVIDUAL BASIS.**
- B. Structures that may not be constructed in, on, or along United States rights-of-way include but are not limited to, permanent structures such as fences, retaining walls, block walls, buildings, garages, decks, carports, trailers, and swimming pools as designated by the United States.
- C. No trees or vines will be allowed within the rights-of-way of the United States.
- D. All temporary or permanent changes in ground surfaces within United States rights-of-way are to be considered to be encroaching structures and must be handled as such. Earthfills and cuts on adjacent property shall not encroach onto United States rights-of-way without prior approval by the United States.
- E. Existing gravity drainage of the United States rights-of-way must be maintained. No new concentration of surface or subsurface drainage may be directed onto or under the United States rights-of-way without adequate provision for removal of drainage water or adequate protection of the United States rights-of-way.
- F. Prior to construction of any structure that encroaches within United States rights-of-way, an excavation must be made to determine the location of existing United States facilities. The excavation must be made by or in the presence of water users or the United States.
- G. Any contractor or individual constructing improvements in, on, or along United States rights-of-way must limit his construction to the encroaching structure previously approved and construct the improvements strictly in accordance with plans or specifications.
- H. The ground surfaces within United States rights-of-way must be restored to a condition equal to that which existed before the encroachment work began or as shown on the approved plans or specifications.
- I. The owner of newly constructed facilities that encroach on United States rights-of-way shall notify the United States and/or the District upon completion of construction and shall provide the District with one copy and the United States with two copies of as-built drawings showing actual improvements in, on, or along the rights-of-way.
- J. Except in case of ordinary maintenance and emergency repairs, an owner of encroaching facilities shall give the District at least 10 days notice in writing before entering upon United States rights-of-way for the purpose of reconstructing, repairing, or removing the encroaching structure or performing any work on or in connection with the operation of the encroaching structure.
- K. If unusual conditions are proposed for the encroaching structure or unusual field conditions within United States rights-of-way are encountered, the United States reserves the right to impose more stringent criteria than those prescribed herein.
- L. All backfill material within United States rights-of-way shall be compacted to 90 percent of maximum density unless otherwise shown. Mechanical compaction shall not be allowed within 6 inches of the projects works whenever possible. In no case will mechanical compaction using heavy equipment be allowed over the project works or within 18 inches horizontally of the projects works.
- M. That the backfilling of any excavation or around any structure within the United States rights-of-way shall be compacted in layers not exceeding 6 inches thick to the following requirements: (1) cohesive soils to 90 percent maximum density specified by ASTM Part 19, D-698, method A; (2) noncohesive soils to 70 percent relative density specified by ANSI/ASTM Part 19, d-2049, par. 7.1.2, wet method.
- N. Any nonmetallic encroaching structure below ground level shall be accompanied with a metallic strip within the United States rights-of-way.
- O. Owners of encroaching facilities shall notify the United States and/or the District at least forty-eight (48) hours in advance of commencing construction to permit inspection by the United States and/or the District.
- P. No use of United States lands or rights-of-way shall be permitted that involve the storage of hazardous material.

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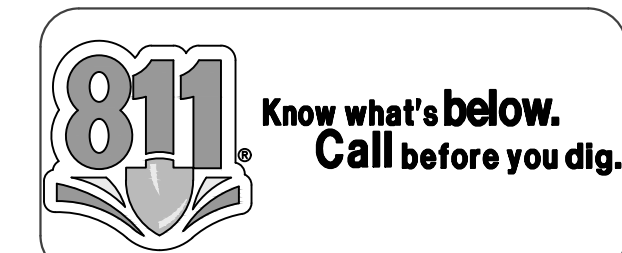
REVISIONS	DESCRIPTION
DATE	J-U-B Comments
06.28.23	NF Lot Numbers
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**The Grove at JDC Ranch Subdivision**  
**Phase 1 & 2**  
WEBER COUNTY, UTAH

**Details**



**Project Info.**  
Engineer: J. NATE REEVE, P.E.  
Drafter: N. FICKLIN  
Begin Date: MARCH 2022  
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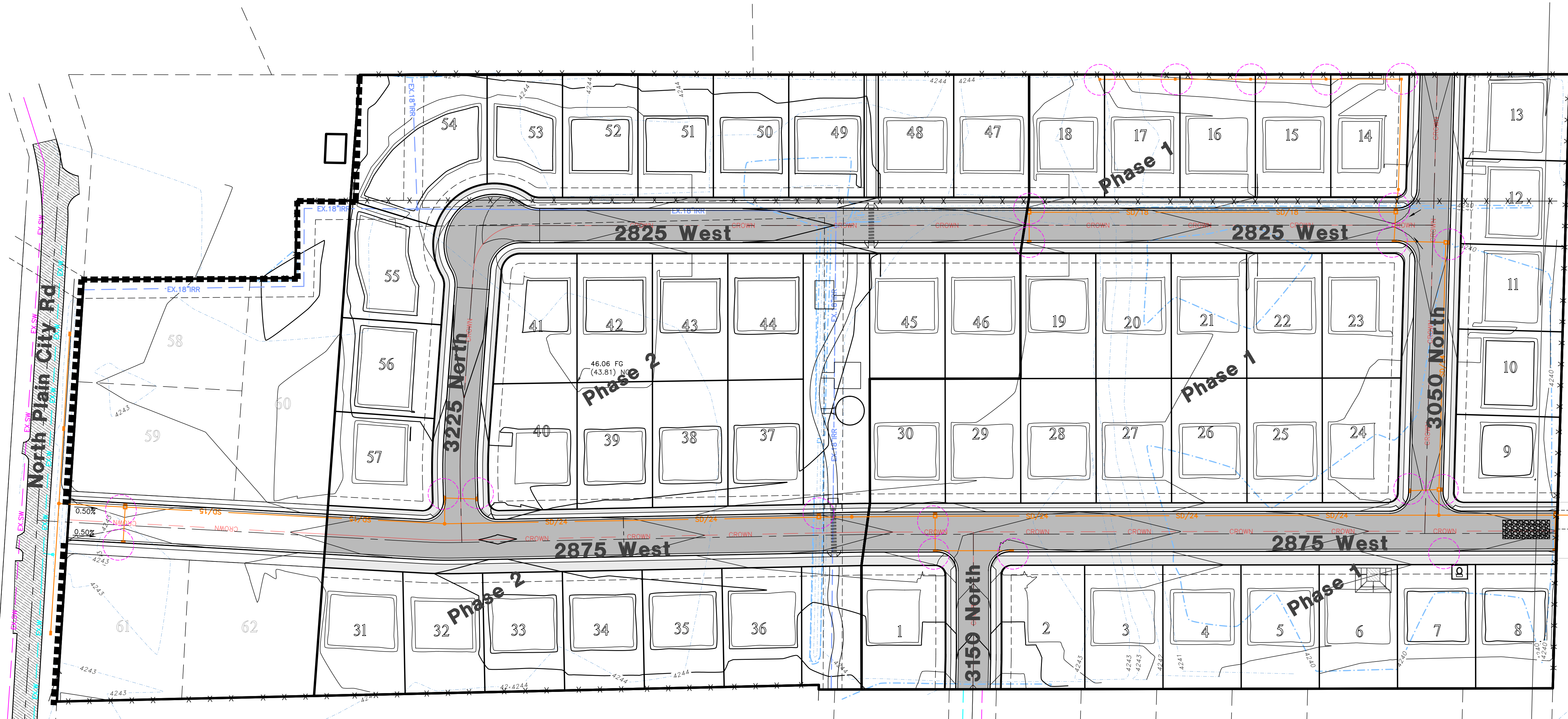
# THE GROVE at JDC RANCH SUBDIVISION

## Storm Water Pollution Prevention Plan Exhibit

WEBER COUNTY, UTAH  
MARCH, 2023



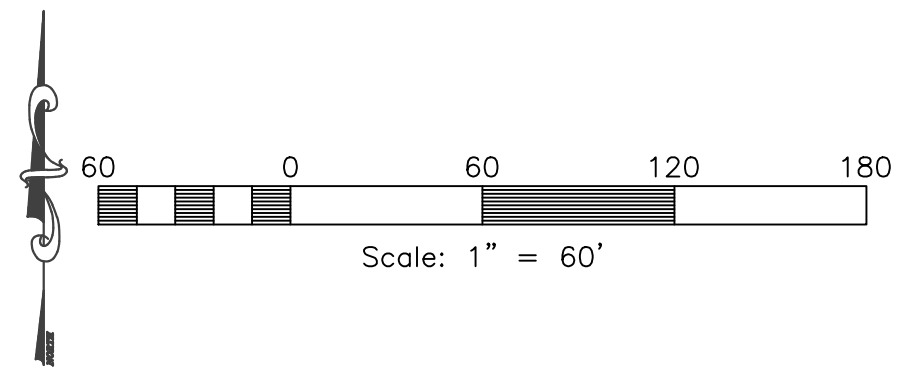
Vicinity Map  
NOT TO SCALE



### SWPPP Legend

- = PORTABLE TOILET
- = INLET PROTECTION TYP. (SEE DETAIL)
- = SILT FENCE (SEE DETAIL)
- = 50'x20' CONSTRUCTION ENTRANCE W/8" CLEAN GRAVEL
- = CONCRETE WASH AREA (SEE DETAIL) OR AS SELECTED BY CONTRACTOR

**SWPPP NOTES:**  
 1. ALL VEHICLES EXITING SITE TO PROCEED THROUGH CONSTRUCTION ENTRANCE TO REDUCE AMOUNTS OF SEDIMENT TRACKED ONTO ROADWAYS.  
 2. STREETS TO BE SWEEPED WITHIN 1000 FEET OF CONSTRUCTION ENTRANCE DAILY IF NECESSARY.



Construction Activity Schedule	
PROJECT LOCATION.....	WEBER COUNTY, (UT)
PROJECT BEGINNING DATE.....	MARCH 2023
BMP'S DEPLOYMENT DATE.....	MARCH 2023
STORM WATER MANAGEMENT CONTACT / INSPECTOR.....	STEVE ANDERSON (801) 430-3996
SPECIFIC CONSTRUCTION SCHEDULE INCLUDING BMP CONSTRUCTION SCHEDULE TO BE INCLUDED WITH SWPPP BY OWNER/DEVELOPER	

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 TEL: (801) 621-3100 www.ra-inc.com

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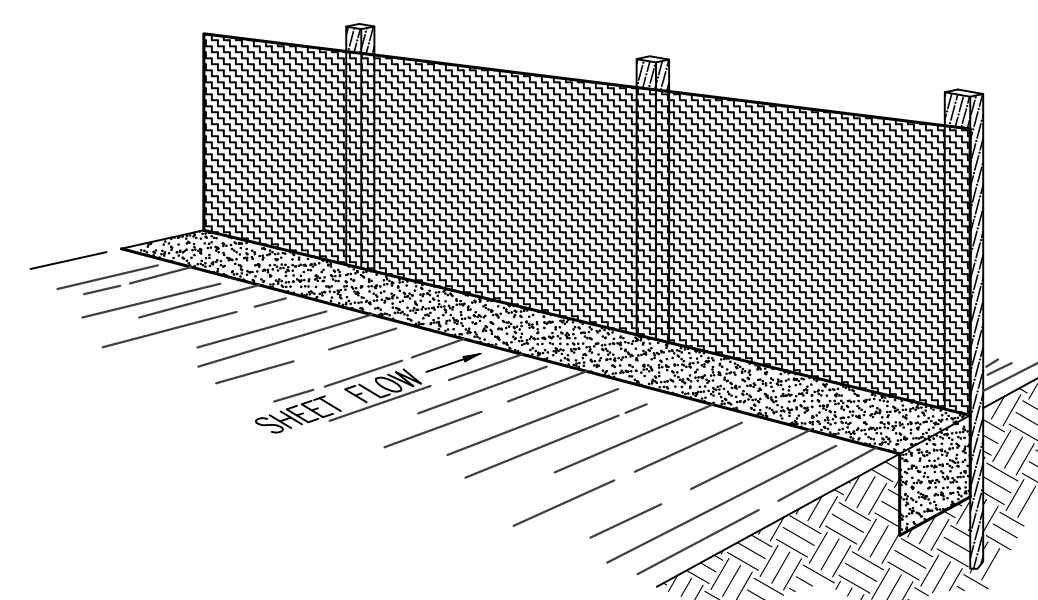
**The Grove at JDC Ranch Subdivision**  
**Phase 1 & 2**  
 WEBER COUNTY, UTAH  
**Storm Water Pollution**  
**Prevention Plan Exhibit**



**Project Info.**  
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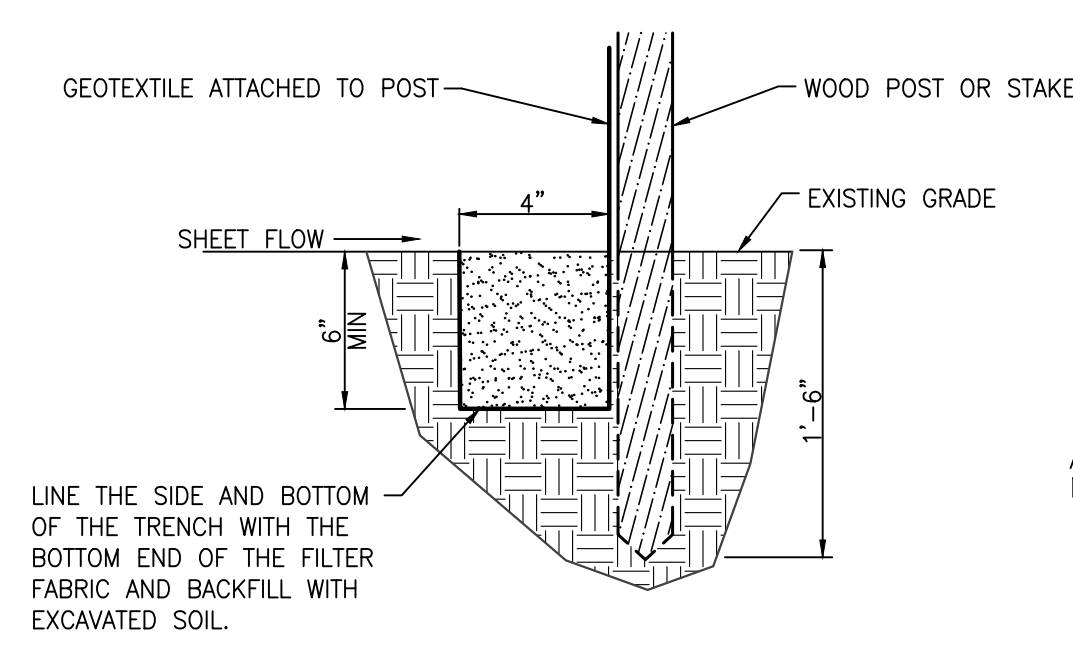
**Notes:**

- Describe all BMP's to protect storm water inlets:  
All storm water inlets to be protected by straw wattle barriers, or gravel bags (see detail).
- Describe BMP's to eliminate/reduce contamination of storm water from:
  - Equipment / building / concrete wash areas:  
To be performed in designated areas only and surrounded with silt fence barriers.
  - Soil contaminated by soil amendments:  
If any contaminants are found or generated, contact environmental engineer and contacts listed.
  - Areas of contaminated soil:  
If any contaminants are found or generated, contact environmental engineer and contacts listed.
  - Fueling area:  
To be performed in designated areas only and surrounded with silt fence.
  - Vehicle maintenance areas:  
To be performed in designated areas only and surrounded with silt fence.
  - Vehicle parking areas:  
To be performed in designated areas only and surrounded with silt fence.
  - Equipment storage areas:  
To be performed in designated areas only and surrounded with silt fence.
  - Materials storage areas:  
To be performed in designated areas only and surrounded with silt fence.
  - Waste containment areas:  
To be performed in designated areas only and surrounded with silt fence.
  - Service areas:  
To be performed in designated areas only and surrounded with silt fence.
- BMP's for wind erosion:  
Stockpiles and site as needed to be watered regularly to eliminate / control wind erosion
- Construction Vehicles and Equipment:
  - Maintenance
    - Maintain all construction equipment to prevent oil or other fluid leaks.
    - Keep vehicles and equipment clean; prevent excessive build-up of oil and grease.
    - Regularly inspect on-site vehicles and equipment for leaks, and repair immediately.
    - Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site.
    - Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids.
  - Fueling
    - If fueling must occur on-site, use designated areas away from drainage.
    - Locate on-site fuel storage tanks within a bermed area designed to hold the tank volume.
    - Cover retention area with an impervious material and install in a manner to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids.
    - Use drip pans for any oil or fluid changes.
  - Washing
    - Use as little water as possible to avoid installing erosion and sediment controls for the wash area.
    - If washing must occur on-site, use designated, bermed wash areas to prevent waste water discharge into storm water, creeks, rivers, and other water bodies.
    - Use phosphate-free, biodegradable soaps.
    - Do not permit steam cleaning on-site.
- Spill Prevention and Control
  - Minor Spills:  
Minor spills are those which are likely to be controlled by on-site personnel. After contacting local emergency response agencies, the following actions should occur upon discovery of a minor spill:
    - Contain the spread of the spill.
    - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (i.e. absorbent materials, cat litter, and / or rags).
    - If the spill occurs in dirt areas, immediately contain the spill by constructing an earth dike. Dig up and properly dispose of contaminated soil.
    - If the spill occurs during rain, cover the impacted area to avoid runoff.
    - Record all steps taken to report and contain spill.
  - Major Spills:  
On-site personnel should not attempt to control major spills until the appropriate and qualified emergency response staff have arrived at the site. For spills of federal reportable quantities, also notify the National Response Center at (800) 424-8802. A written report should be sent to all notified authorities. Failure to report major spills can result in significant fines and penalties.
- Post Roadway / Utility Construction
  - Maintain good housekeeping practices.
  - Enclose or cover building material storage areas.
  - Properly store materials such as paints and solvents.
  - Store dry and wet materials under cover, away from drainage areas.
  - Avoid mixing excess amounts of fresh concrete or cement on-site.
  - Perform washout of concrete trucks offsite or in designated areas only.
  - Do not wash out concrete trucks into storm drains, open ditches, streets or streams.
  - Do not place material or debris into streams, gutters or catch basins that stop or reduce the flow of runoff water.
  - All public streets and storm drain facilities shall be maintained free of building materials, mud and debris caused by grading or construction operations. Roads will be swept within 1000' of construction entrance daily, if necessary.
  - Install straw wattle around all inlets contained within the development and all others that receive runoff from the development.
- Erosion Control Plan Notes
  - The contractor will designate an emergency contact that can be reached 24 hours a day 7 days a week.
  - A stand-by crew for emergency work shall be available at all times during potential rain or snow runoff events. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of emergency devices when rain or runoff is eminent.
  - Erosion control devices shown on the plans and approved for the project may not be removed without approval of the engineer of record. If devices are removed, no work may continue that have the potential of erosion without consulting the engineer of record. If deemed necessary erosion control should be reestablished before this work begins.
  - Graded areas adjacent to fill slopes located at the site perimeter must drain away from the top of the slope at the conclusion of each working day. This should be confirmed by survey or other means acceptable to the engineer of record.
  - All silt and debris shall be removed from all devices within 24 hours after each rain or runoff event.
  - Except as otherwise approved by the inspector, all removable protective devices shown shall be in place at the end of each working day and through weekends until removal of the system is approved.
  - All loose soil and debris, which may create a potential hazard to offsite property, shall be removed from the site as directed by the engineer of record of the governing agency.
  - The placement of additional devices to reduce erosion damage within the site is left to the discretion of the engineer of record.
  - Desilting basins may not be removed or made inoperable without the approval of the engineer of record and the governing agency.
  - Erosion control devices will be modified as need as the project progresses and plans of these changes submitted for approval by the engineer of record and the governing agency.
- Conduct a minimum of one inspection of the erosion and sediment controls every two weeks. Maintain documentation on site.
  - Part III.D.4 of general permit UTRC00000 identifies the minimum inspection requirements.
  - Part III.D.4.C identifies the minimum inspection report requirements.
  - Failure to complete and/or document storm water inspections is a violation of part III.D.4 of Utah General Permit UTR 300000.



**Perspective View**

Figure 2



**Section**

**INSTALLATION**  
The silt fence should be installed prior to major soil disturbances in the drainage area. The fence should be placed across the slope along a line of uniform elevation wherever flow of sediment is anticipated. Table 1 shows generally-recommended maximum slope lengths (slope spacing between fences) at various site grades for most silt fence applications.

Slope Steepness (%)	Max. Slope Length m (ft)
<2%	30.5m (100ft)
2-5%	22.9m (75ft)
5-10%	15.2m (50ft)
10-20%	7.6m (25ft)
>20%	4.5m (15ft)

**PREFABRICATED SILT FENCE ROLLS**  
\*Excavate a minimum 15.2cm x 15.2cm (6"x6") trench at the desired location.  
\*Unroll the silt fence, positioning the post against the downstream wall of the trench.  
\*Adjacent rolls of silt fence should be joined by nesting the end post of one fence into the other. Before nesting the end posts, rotate each post until the geotextile is wrapped completely around the post, then abut the end posts to create a tight seal as shown in Figure 1.  
\*Drive posts into the ground until the required fence height and/or anchorage depth is obtained.  
\*bury the loose geotextile at the bottom of the fence in the upstream trench and backfill with natural soil, tamping the backfill to provide good compaction and anchorage. Figure 2 illustrates a typical silt fence installation and anchor trench placement.

should generally be less than three (3) times the height of the fence.  
\*If a steel or plastic mesh is required to reinforce the geotextile, it shall have a minimum mesh opening of 15.2cm (6").  
\*Fasten the mesh to the upslope side of the posts using heavy duty wire staples, tie wires or hog strings. Extend the mesh into the bottom of the trench.  
\*The geotextile shall then be stapled or wired to the posts. An extra 20-50cm (8-20") of geotextile shall extend into the trench.

**INSPECTION**  
\*Inspect the silt fence daily during periods of rainfall, immediately after significant rainfall event and weekly during periods of no rainfall. Make any repairs immediately.  
\*When sediment deposits behind the silt fence are one-third of the fence height, remove and properly dispose of the silt accumulations. Avoid damage to the fabric during cleanout.

**REMOVAL**  
\*Silt fence should not be removed until construction ceases and the upslope area has been properly stabilized and/or revegetated.

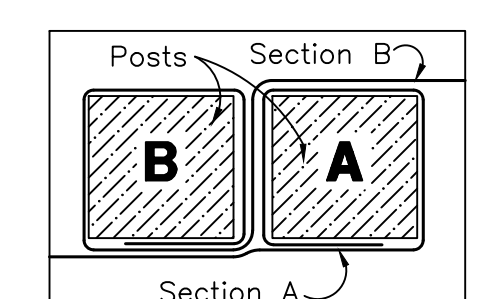
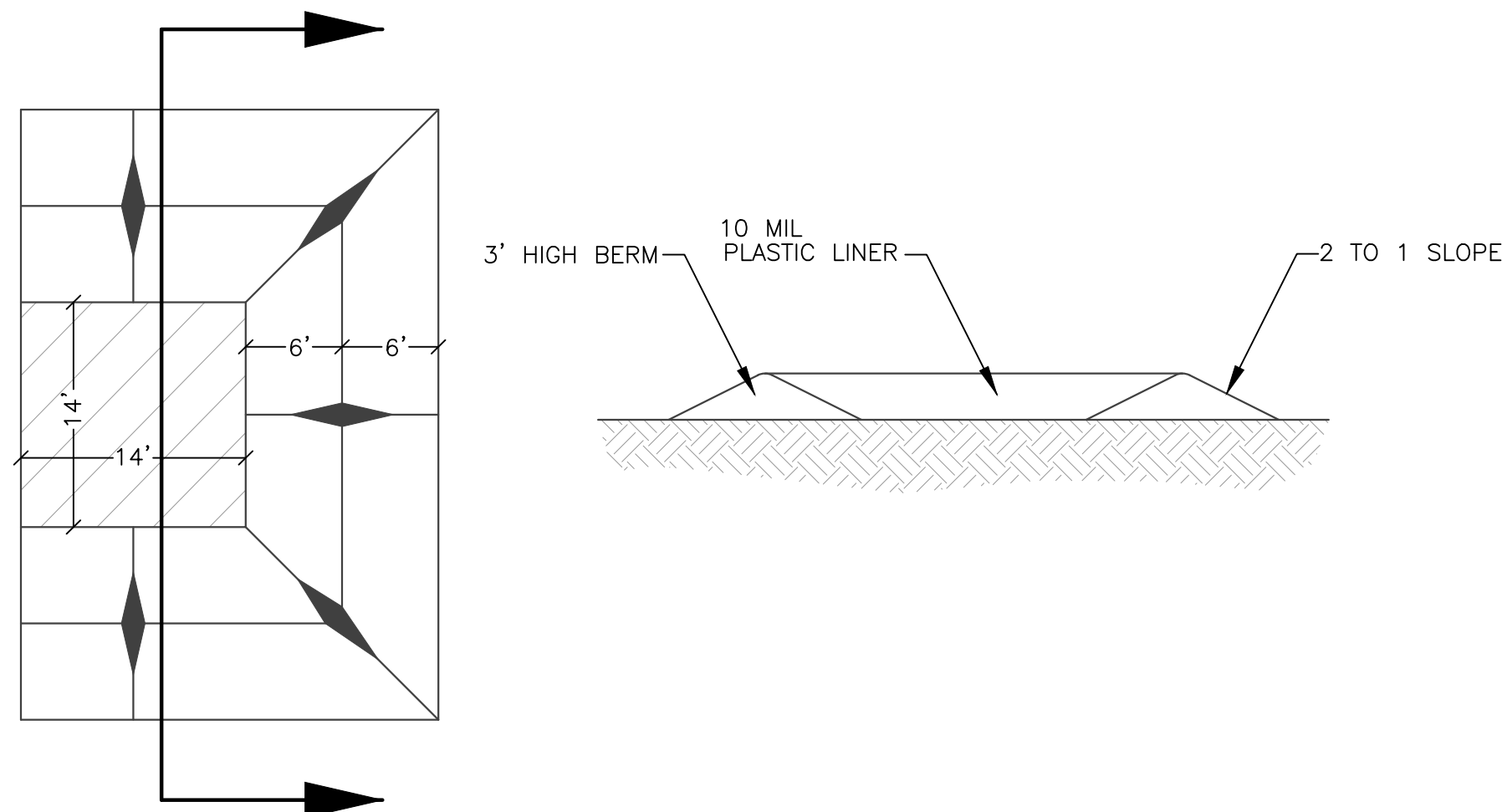


Figure 1: Top View of Roll-to-Roll Connection

**FIELD ASSEMBLY:**  
\*Excavate a minimum 15.2cm x 15.2cm (6"x6") trench at the desired location.  
\*Drive wooden posts, or steel posts with fastening projections, against the downstream wall of the trench. Maximum post spacing should be 2.4-3.0m (8-10ft). Post spacing

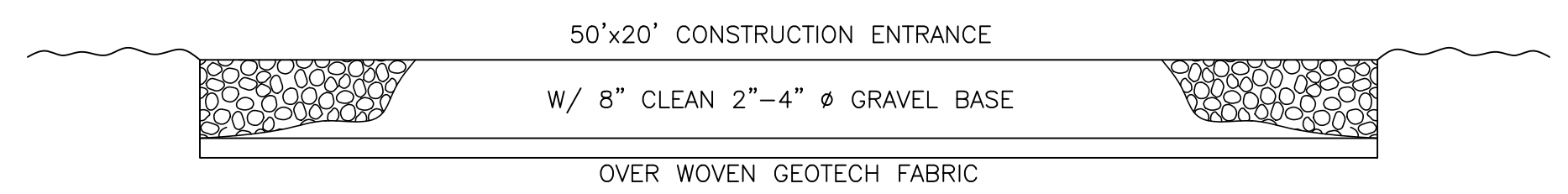
**Silt Fence Detail**

SCALE: NONE

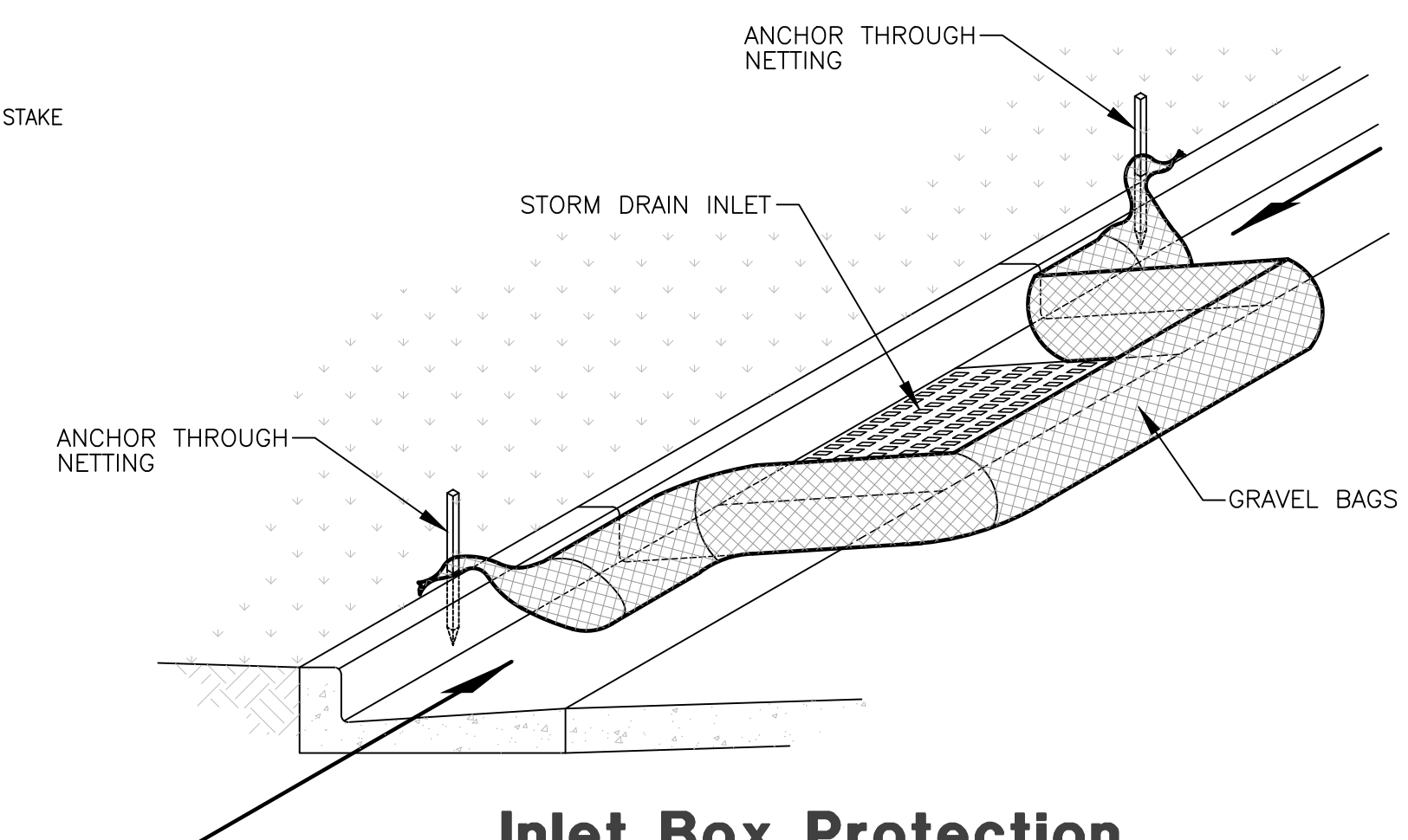


**Concrete Washout Area w/ 10 mil Plastic Liner**

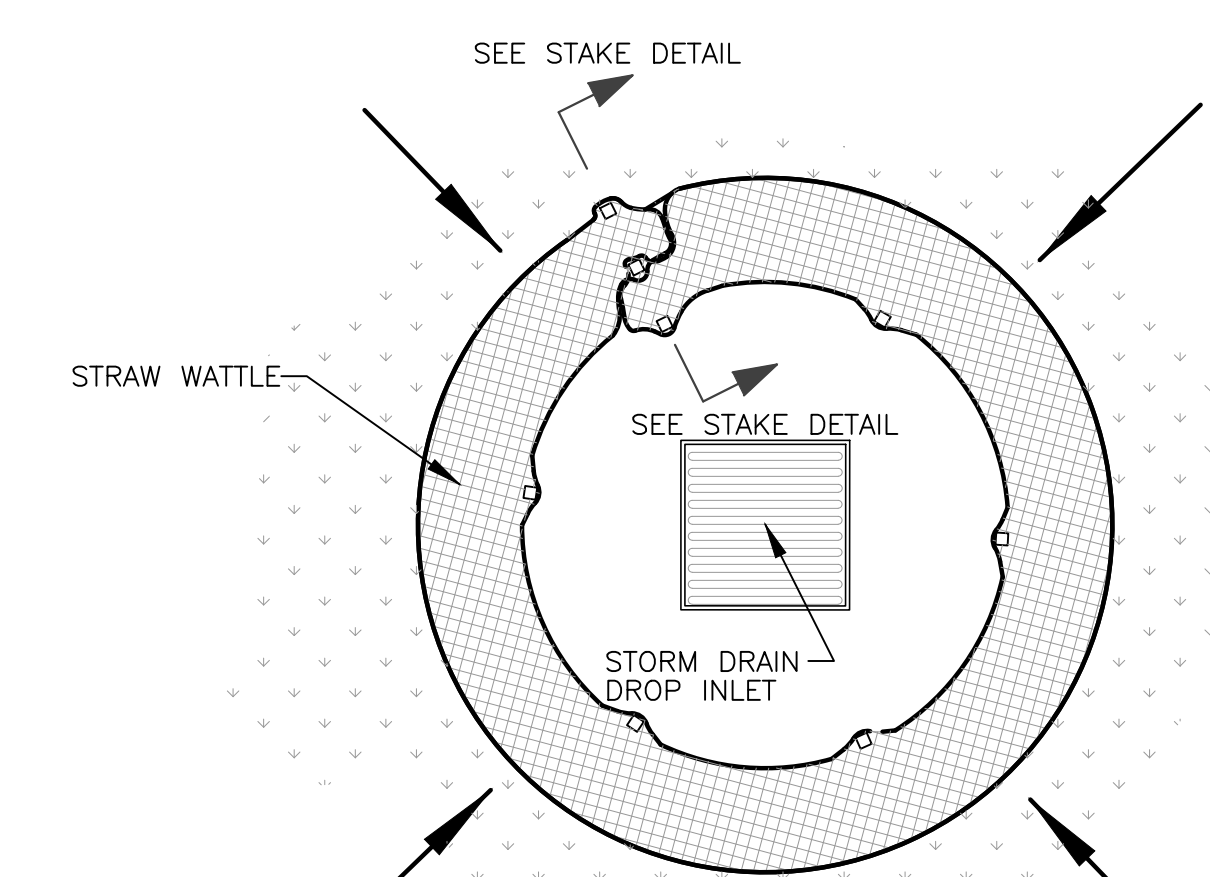
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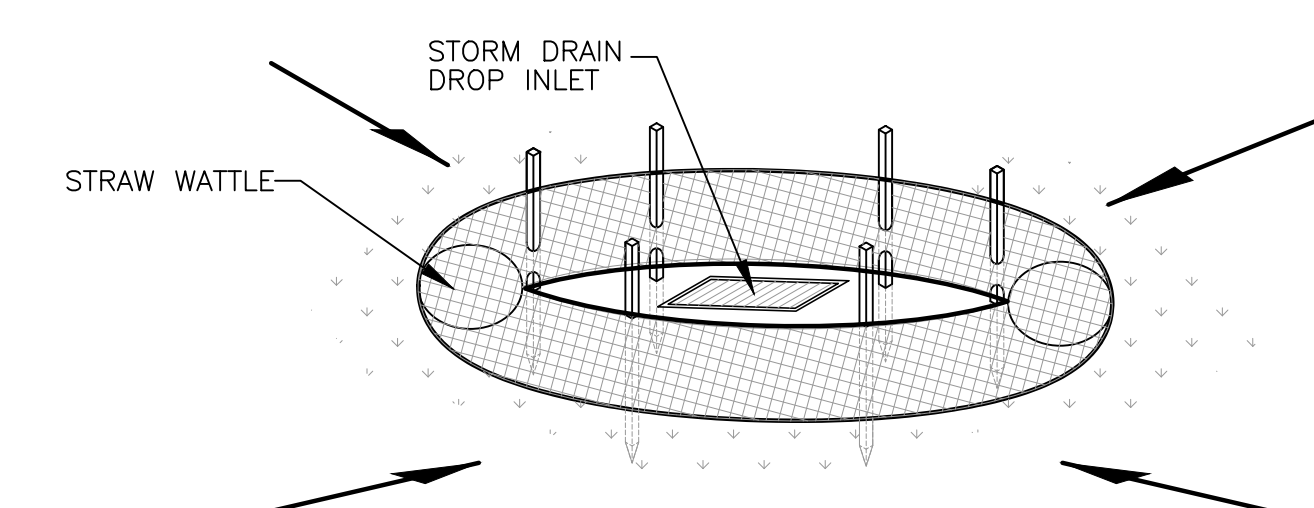
**Cross Section 50' x 20' Construction Entrance**



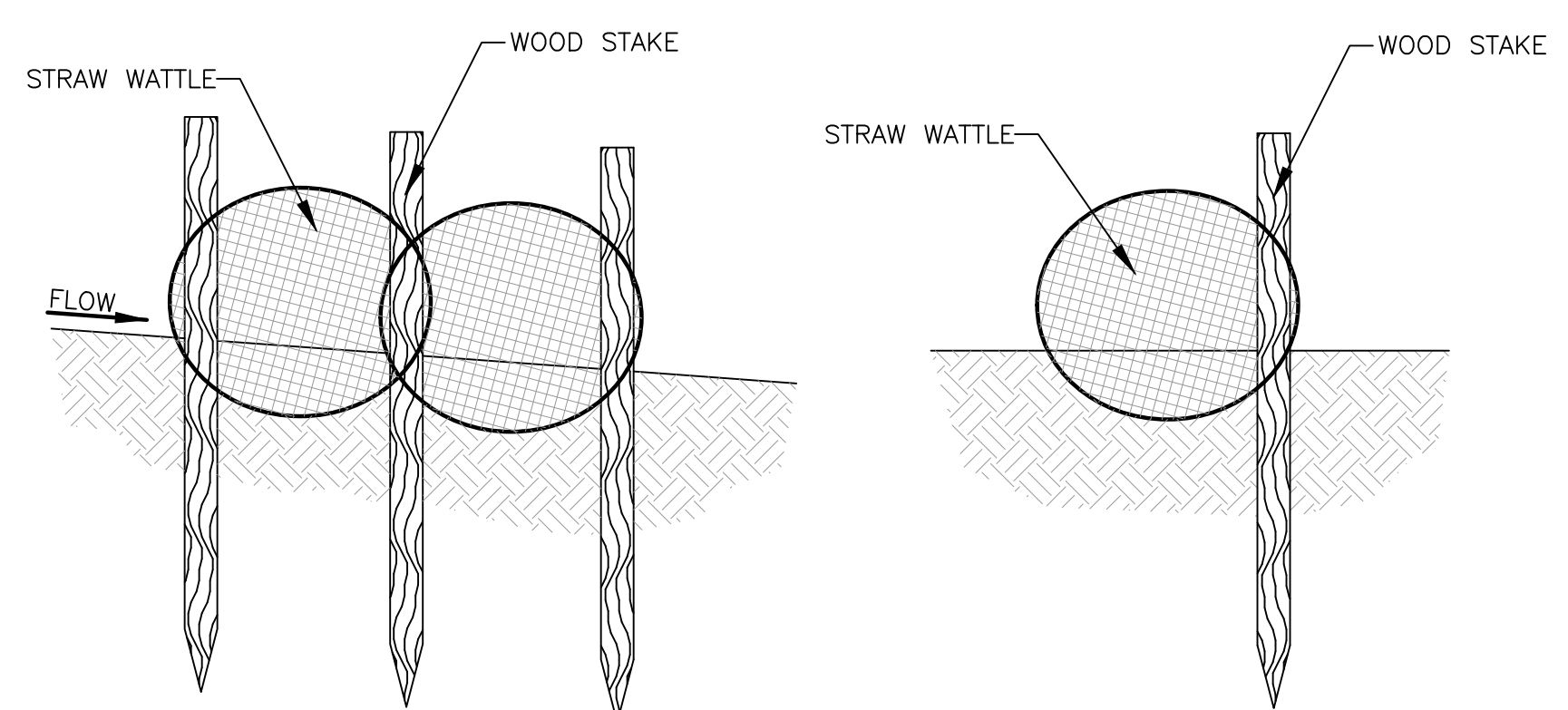
**Inlet Box Protection**



**Plan View**



**Drop Inlet Protection**



**Stake Detail**

**Reeve & Associates, Inc.**  
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**RA**

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REVISIONS	DATE	DESCRIPTION
06/28/23	NF	J-U-B Comments
09/20/23	NF	Lot Numbers

**The Grove at JDC Ranch Subdivision Phase 1 & 2**  
WEBER COUNTY, UTAH

**Storm Water Pollution Prevention Plan Details**



**Project Info.**

Engineer: J. NATE REEVE, P.E.  
 Drafter: N. FICKLIN  
 Begin Date: MARCH 2022  
 Name: THE GROVE AT JDC RANCH SUBDIVISION PHASE 1 & 2  
 Number: 7152-14

