Project Narrative/Notes/Revisions

General Notes

CONSTRUCTION STAKING TO BE PROVIDED BY REEVE & ASSOCIATES, INC.

IMPROVEMENT DRAWINGS SHALL BE RESUBMITTED AND APPROVED BY THE

SANITARY SEWER SERVICE LINES.

OF CONNECTING SEWER PIPING.

AND WRAPPED IN 8-MIL POLYETHYLENE.

IMPROVEMENTS DURING CONSTRUCTION.

OR DAMAGE TO EXISTING UTILITIES.

CONTRACTOR PRIOR TO EXCAVATION.

TRANSPORTATION ENGINEERS' MANUAL.

PRIOR TO COMMENCING CONSTRUCTION.

SPECIFICATIONS AND DRAWINGS.

AND PAVEMENT RESTORATION.

PERMITTING REQUIREMENTS.

PREVENT BLOWING.

PVC PIPING.

SIX INCHES THICK.

UNLESS OTHERWISE DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.

. ANY MODIFICATION TO THIS CONSTRUCTION PACKAGE OR TO THE CONSTRUCTION SCHEDULE SHALL BE APPROVED BY THE ENGINEER. PRIOR TO SAID APPROVAL, ALL

3. THE CONTRACTOR SHALL LOCATE, RETAIN AND PROTECT ALL EXISTING UTILITIES

4. THE CONTRACTOR SHALL MAINTAIN 10 FOOT HORIZONTAL AND 18 INCH VERTICAL SEPARATION, CULINARY WATER LINES, SANITARY SEWER, AND STORM DRAIN LINES. 5. THE CONTRACTOR SHALL INSTALL ALL SANITARY SEWER MAINS, SERVICE LINES AND STORM DRAIN LINES PRIOR TO INSTALLING ANY WATER SYSTEM IMPROVEMENTS. ADJUST WATER MAINS FROM 4'-6" TO 6'-6" OF COVER AS REQUIRED TO AVOID

6. SIDEWALKS SHALL BE FOUR INCHES THICK, UNLESS FRONTING DRIVEWAY, THEN

RESPECTIVE UTILITY COMPANY. OWNER SHALL PAY ALL ASSOCIATED UTILITY COMPANY

9. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SLOPE AND CONSTRUCTION

10. CONTRACTOR SHALL BE RESPONSIBLE OF PROPER BACKFILLING, COMPACTING.

12. ALL THRUST BLOCKS SHALL BE POURED IN PLACE AGAINST UNDISTURBED SOIL.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT SURFACE

16. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY SETTLEMENT OF

17. ALL EXISTING ASPHALT SHALL BE SAW CUT IN NEAT STRAIGHT LINES BY THE

18. CONTRACTOR TO INSTALL MAGNETIC LOCATING TAPE CONTINUOUSLY OVER ALL

19. THE CONTRACTOR IS RESPONSIBLE TO FURNISH ALL MATERIALS TO COMPLETE

21. A UPDES GENERAL CONSTRUCTION STORM WATER PERMIT MUST BE OBTAINED

22. ALL WORK SHALL CONFORM TO THE CURRENT EDITION OF THE APWA AND CITY

20. TRAFFIC CONTROL IS TO CONFORM TO THE CURRENT CITY AND/OR STATE

13. ALL EXPOSED NUTS AND BOLTS WILL BE COATED WITH A NON-OXIDE WASH

14. CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ACCORDING TO GOVERNING AGENTS STANDARDS. WET DOWN DRY MATERIALS AND RUBBISH TO

11. CONTRACTOR TO OBTAIN ALL NECESSARY PERMIT(S) AND COMPLY WITH ALL

ALL VALVES, FITTINGS, AND APPURTENANCES TO BE BLOCKED.

7. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL UTILITY CONFLICTS UPON

ELECTRICAL, TELEPHONE, NATURAL GAS AND CABLE TV SERVICES WITH THE

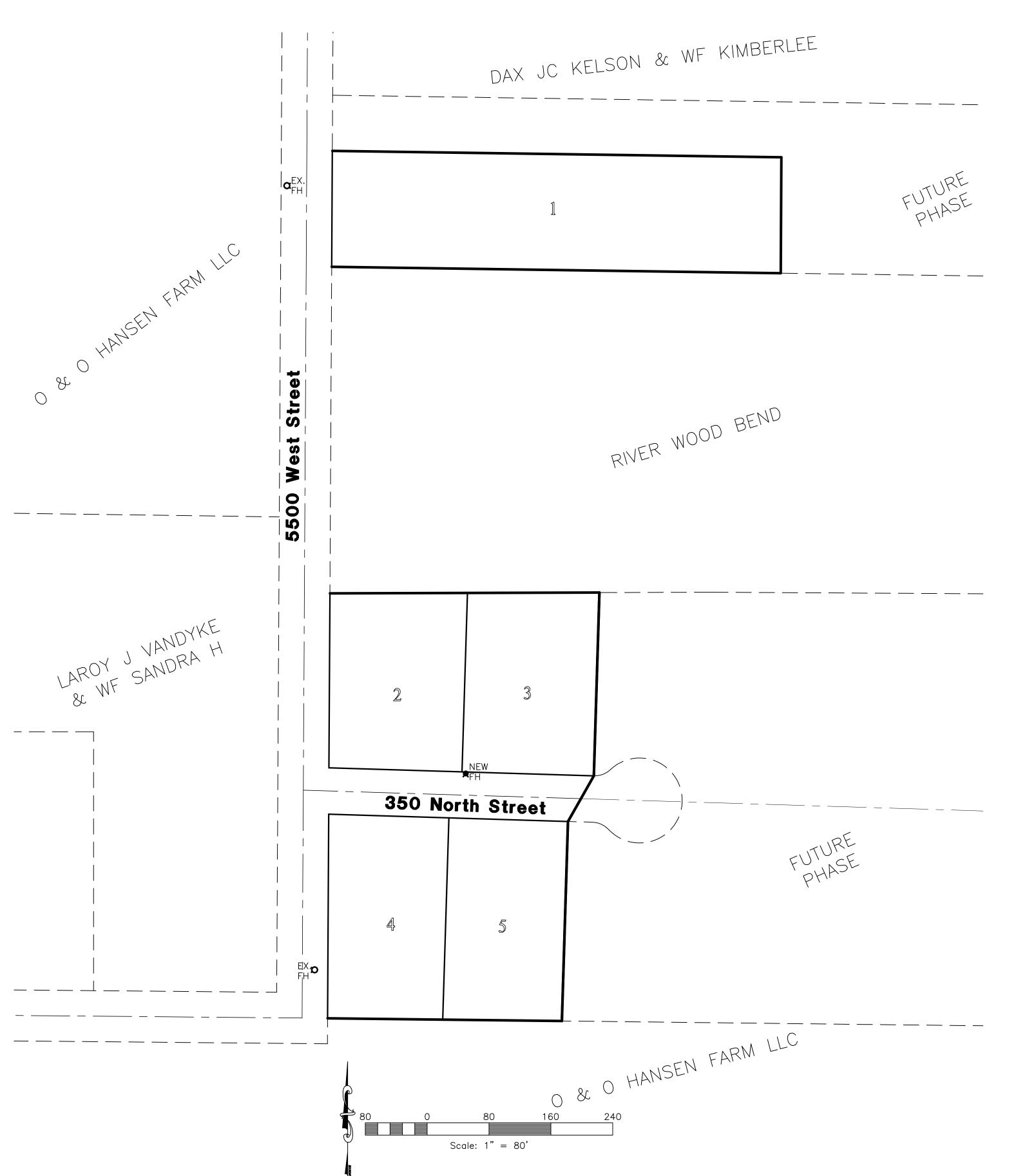
8. CONTRACTOR SHALL COORDINATE CONSTRUCTION AND INSTALLATION OF

1) 4/1/11 RH - PREPARED PLANS FOR CLIENT. 2) 4/14/11 RH - REVISED PLANS PER COUNTY COMMENTS 3) 6/15/11 RH - REVISED PLANS PER COUNTY COMMENTS 4) 9/29/11 RH - REVISED PLANS PER COUNTY COMMENTS

LISA ESTATES SUBDIVISION

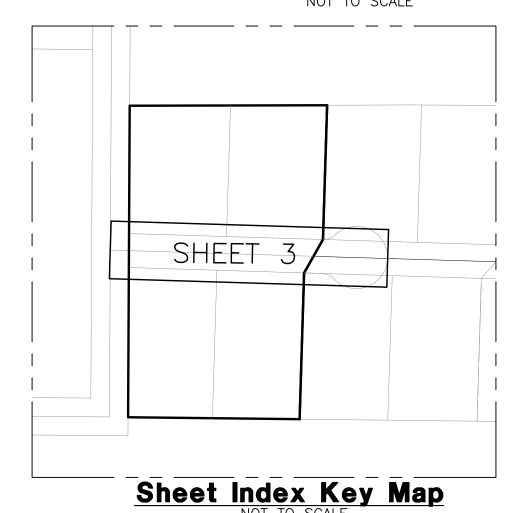
Phase-1 & Phase-2 Improvement Plans

WARREN, WEBER COUNTY, UTAH MARCH, 2011





Vicinity Map



Sheet Index

Sheet 1 - Cover/Index Sheet

Sheet 2 - Street Cross-Sections/Legend/Notes Sheet 3 - 350 North Street 10+00.00 - 15+50.00 Sheet 4 - Overall Secondary Water Plan

& 5500 West Ditch Piping Plan **Sheet 5 - Storm Water Pollution Prevention Plan**

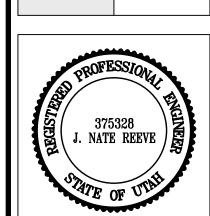
Sheet 6 - Storm Water Pollution Prevention Plan

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division 2 UTAH



Project Info. <u>J. NATE REEVE, P.E.</u> Drafter: R. HANSEN Begin Date: MARCH 18, 2011

LISA ESTATES SUBDIVISION PHASE 1 & 2 Number: <u>1714–27</u>

Sheet Sheets

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.

Contact: Allan Karras

Century 21 2609 N. Main Sunset, Utah 84015

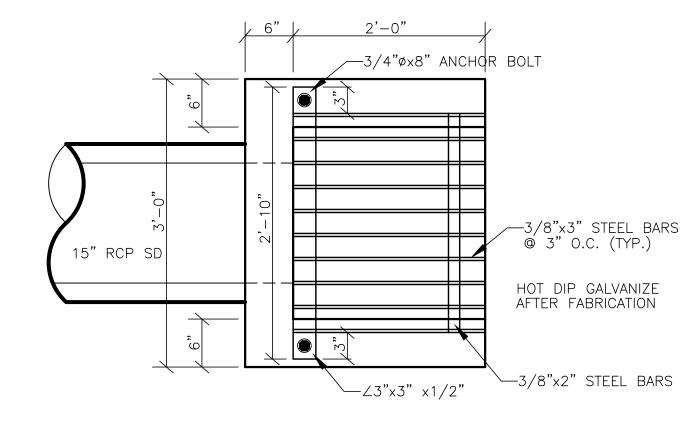
Call: Toll Free 1-800-662-4111 Two Working Days Before You Dig

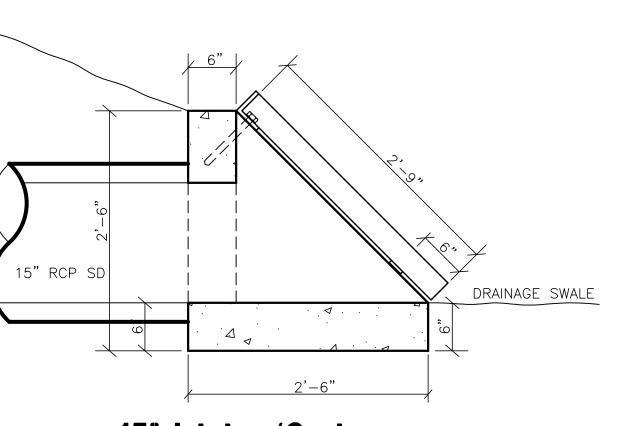
Blue Stakes Location Center

\РН: (801) 564—0909 THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF REEVE & ASSOCIATES, INC., 4155 S. HARRISON BLVD. EXECUTIVE BLDG. #310, OGDEN, UTAH 84403, AND SHALL NOT BE PHOTOCOPIED, RE-DRAWN, OR USED ON ANY PROJECT OTHER THAN THE PROJECT OT

Legend

			•		
W	— = PROPOSED CULINARY WATER LINE		= EXISTING CATCH BASIN	L.F.	= LINEAR FEET
— —EX.W — —	- = EXISTING CULINARY WATER LINE	•	= EXISTING SPRINKLER	NG	= NATURAL GRADE
——SS ——	— = PROPOSED SANITARY SEWER LINE	•	= PLUG W/ 2" BLOW-OFF	O.C.	= ON CENTER
— —EX.SS — -	— = EXISTING SANITARY SEWER LINE	•	= AIR-VAC ASSEMBLY	PC	= POINT OF CURVE
——SD ——	— = PROPOSED STORM DRAIN LINE	▼	= PROPOSED REDUCER	PRC	= POINT OF REVERSE CURVE
— —EX.SD — -	— = EXISTING STORM DRAIN LINE	ப	= PLUG & BLOCK	PRVC	= POINT OF REVERSE VERTICAL CURV
——LD ——	— = PROPOSED LAND DRAIN LINE		= STREET LIGHT	PT	= POINT OF TANGENT
— —EX.LD — -	— = EXISTING LAND DRAIN LINE		= SIGN	PP	= POWER/UTILITY POLE
——SW ——	- = PROPOSED SECONDARY WATER LINE	BLDG	= BUILDING	P.U.E.	= PUBLIC UTILITY EASEMENT
— —EX.SW — -	- = EXISTING SECONDARY WATER LINE	BVC	= BEGIN VERTICAL CURVE	R/C	= REBAR & CAP
——IRR——	- = PROPOSED IRRIGATION LINE	C&G	= CURB & GUTTER	RCB	= REINFORCED CONCRETE BOX
— —EX.IRR— -	— = EXISTING IRRIGATION LINE	СВ	= CATCH BASIN	RCP	= REINFORCED CONCRETE PIPE
— — —OHP— —	- = EXISTING OVERHEAD POWER LINE	C.F.	= CUBIC FEET	RIM	= RIM OF MANHOLE
TEL	- = EXISTING TELEPHONE LINE	C.F.S.	= CUBIC FEET PER SECOND	R.O.W.	= RIGHT-OF-WAY
GAS	- = EXISTING NATURAL GAS LINE	CL	= CENTERLINE	SD	= STORM DRAIN
	- = EXISTING EDGE OF PAVEMENT	DI	= DUCTILE IRON	SS	= SANITARY SEWER
X	×= FENCE LINE	EP	= EDGE OF PAVEMENT	SW	= SECONDARY WATER
	= masonry block/retaining wall	EVC	= END VERTICAL CURVE	TBC	= TOP BACK OF CURB
· ·	- = DITCH/SWALE FLOWLINE	FC	= FENCE CORNER	TOE	= TOE OF SLOPE
Ŭ	= PROPOSED FIRE HYDRANT	FF	= FINISH FLOOR	TOP	= TOP OF SLOPE
Q	= EXISTING FIRE HYDRANT	FFE	= FINISH FLOOR ELEVATION	TOW	= TOP OF WALL
	= PROPOSED MANHOLE	FG	= FINISHED GRADE	TSW	= TOP OF SIDEWALK
\circ	= EXISTING MANHOLE	FH	= FIRE HYDRANT	VPI	= VERTICAL POINT OF INTERSECT.
•	= PROPOSED SEWER CLEAN-OUT	FL	= FLOW LINE	W	= CULINARY WATER
I	= PROPOSED GATE VALVE	GB	= GRADE BREAK	WM	= WATER METER
X	= EXISTING GATE VALVE	HDPE	= HIGH DENSITY POLYETHYLENE PIPE		= NEW PAVEMENT
	= PROPOSED WATER METER	INV	= INVERT		
(= EXISTING WATER METER	IRR	=IRRIGATION		= NEW CONCRETE
	= PROPOSED CATCH BASIN	LD	= LAND DRAIN		





15" Inlet w/Grate

General Notes

- 1. ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE DEVELOPMENT STANDARDS OF WEBER COUNTY AND THE STANDARD DRAWINGS CONTAINED THEREIN. WEBER COUNTY PUBLIC WORKS REQUIREMENTS SHALL BE MET.
- 2. 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.
- 3. THE STREET STRUCTURAL CROSS SECTION IS PER WEBER COUNTY DETAILS CONTAINED WITHIN THESE PLANS.
- 4. WATER LINE PIPE SHALL BE PVC C-900 CLASS 200. WASHOUT ASSEMBLIES SHALL CONSIST OF A KUPFERLE FOUNDRY CO. 2" BLOW-OFF HYDRANT (OR COUNTY-APPROVED EQUIV.).
- 5. SECONDARY WATER LINE SHALL BE PVC C-900 CLASS 200. ALL SECONDARY WATER VALVE LIDS SHALL BE STAMPED "IRRIGATION".



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JNTY, UTAH ctions/ Notes s-Se States
Phase
WARREN, WEBER S O Street Master Ø S

J. NATE REEVE

Project Info. J. NATE REEVE, P.E. Drafter: R. HANSEN Begin Date: MARCH 18, 2011 Name:

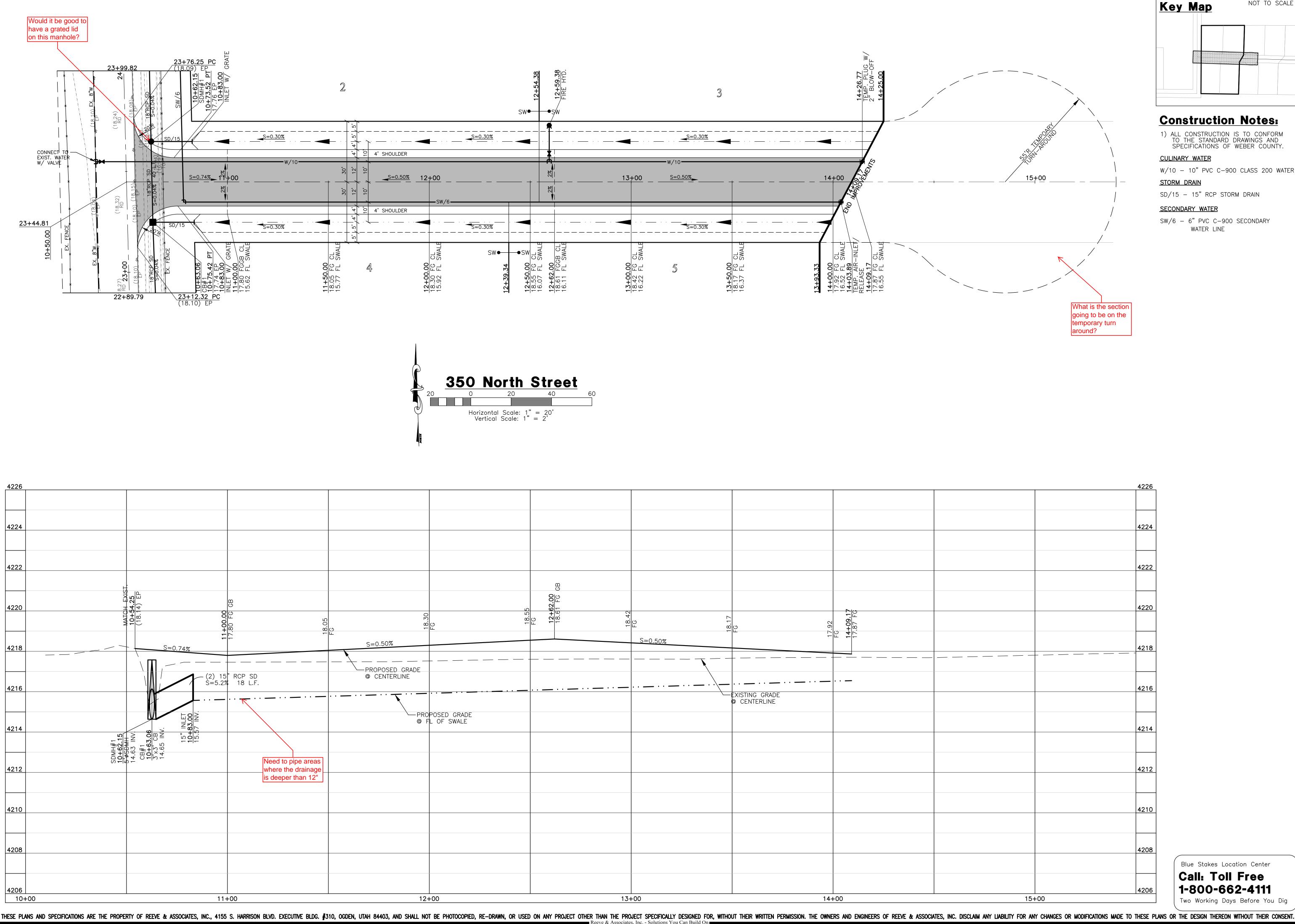
LISA ESTATES

SUBDIVISION

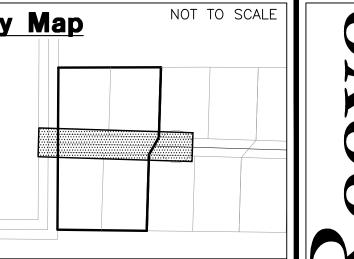
PHASE 1 & 2 Number: 1714-27 Sheet

Sheets

Reeve & Associates, Inc. - Solutions You Can Build On

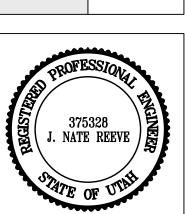


Reeve & Associates, Inc. - Solutions You Can Build On



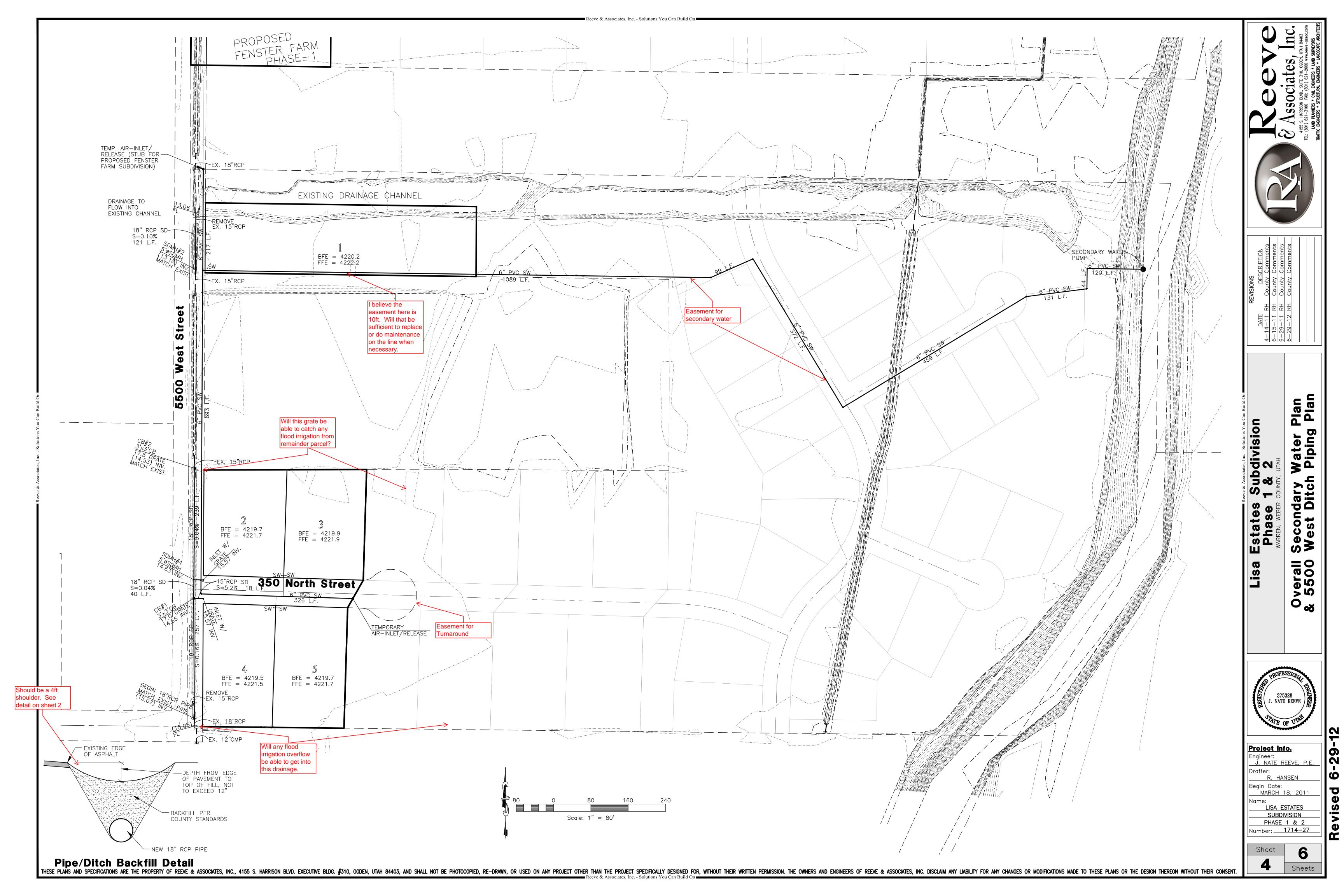
DATE 4-14-11 6-15-11 9-29-11 6-29-12

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Project Info. MARCH 18, 2011 LISA ESTATES PHASE 1 & 2 Number: <u>1714–27</u>

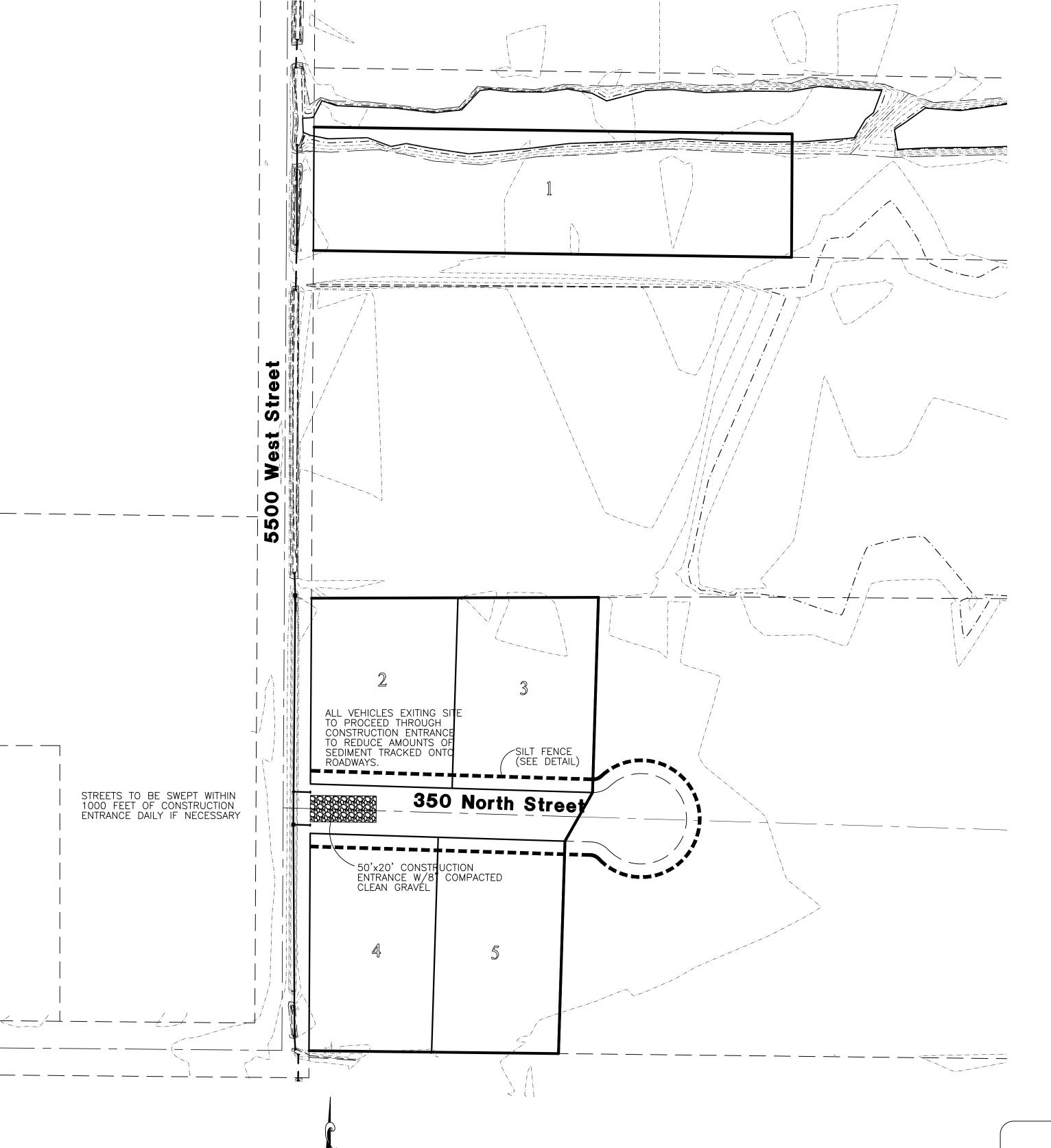
Sheet 3 Sheets

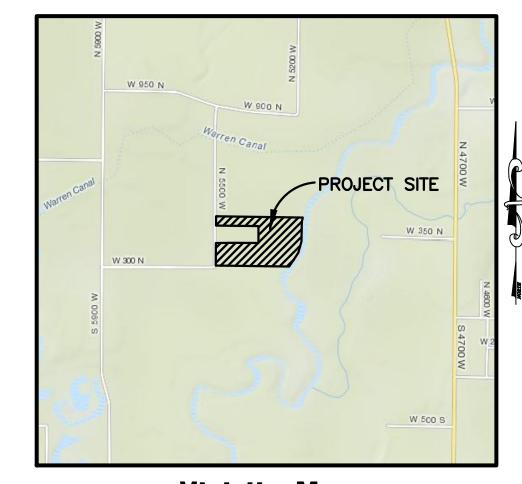


LISA ESTATES SUBDIVISION

Phase-1 & Phase-2
Storm Water Pollution Prevention Plan Exhibit

WARREN, WEBER COUNTY, UTAH MARCH, 2011





Vicinity Map
NOT TO SCALE





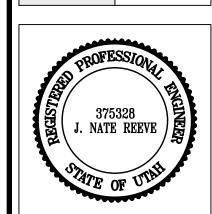
REVISIONS	<u>DATE</u> <u>DESCRIPTION</u> 4-14-11 RH County Comments	RH County Comments	RH County Comments	RH County Comments			
	<u>DATE</u> 4-14-11	6-15-11 RH	9-29-11 RH	6-29-12 RH			

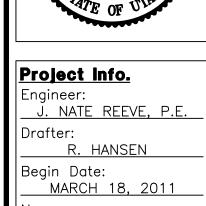
Phase 1 & 2

WARREN, WEBER COUNTY, UTAH

Storm Water Pollution

Prevention Plan Exhibit





Number: 1714-27

Sheet 6

Sheets

LISA ESTATES

SUBDIVISION
PHASE 1 & 2

Scale: 1" = 80'

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 contaminates are found or generated, contact environmental engineer and contacts listed.
 - If any contaminates 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.

Waste containment areas:

- 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.
- To be performed in designated areas only and surrounded with silt fence.
- 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:

- a. 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.

- 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 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.

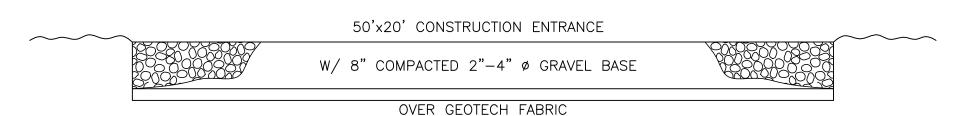
- Use as little water as possible to avoid installing erosion and sediment controls for the wash area. - If washing must occur on—site, use designated, bermed wash areas to prevent waste water discharge into
- storm water, creaks, rivers, and other water bodies.
- Use phosphate-free, biodegradable soaps. Do not permit steam cleaning on—site.

Spill Prevention and Control

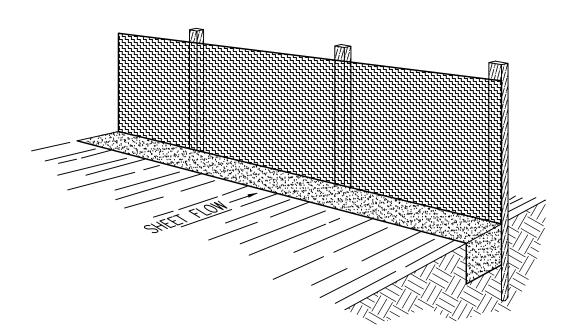
- a. Minor Spills:
 - Minor spills are those which are likely to be controlled by on—site personnel. After contacting local emergency response agencies, the following actions should occur upon discovery of a minor spill: Contain the spread of the spill.
 - If the spill occurs on paved or impermeable 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 property 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.
- 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.

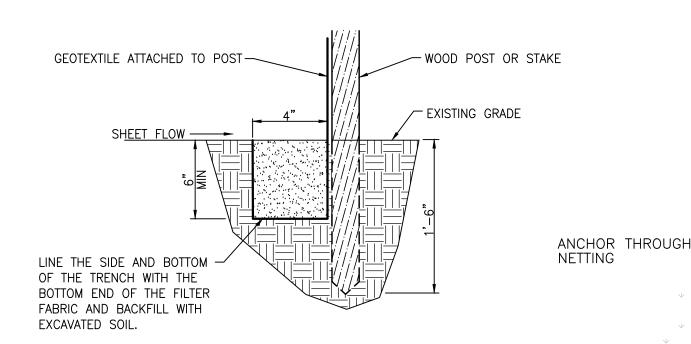
Post Roadway / Utility Construction

- 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
- 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,
- 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. d. 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 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 Desilting basins may not be removed or made inoperable without the approval of the engineer of record and the
- 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 UTR300000 identifies the minimum inspection requirements.
- Part II.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



Cross Section 50' x 20' Construction Entrance





Section

Perspective View

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.

Reeve & Associates, Inc. - Solutions You Can Build On

	TABLE 1:							
		ximum Slope Lengths						
	for Silt Fence							
	(Richardson & N	Middlebrooks, 1991)						
		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 be 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

*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.

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

should generally be less than three (3) times *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

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.

or hog strings. Extend the mesh into the bottom

*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.

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

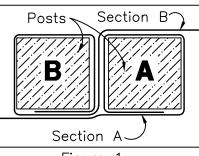
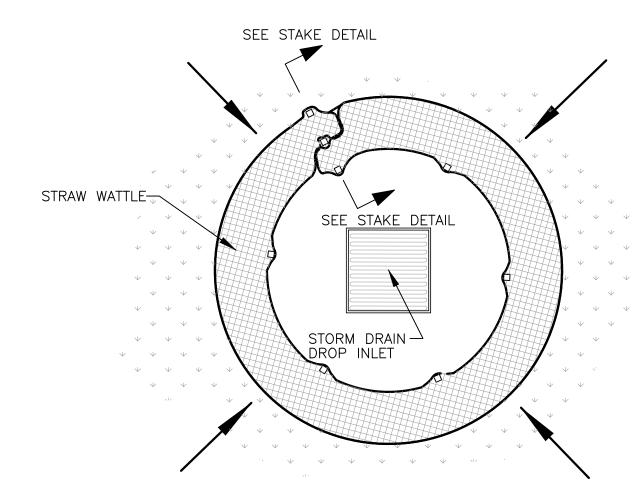


Figure 1: Top View of Roll-to-Roll Connection

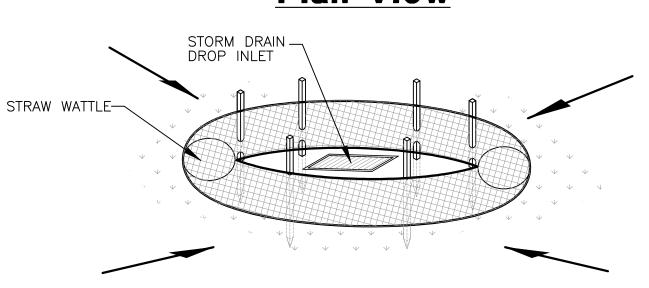


Plan View

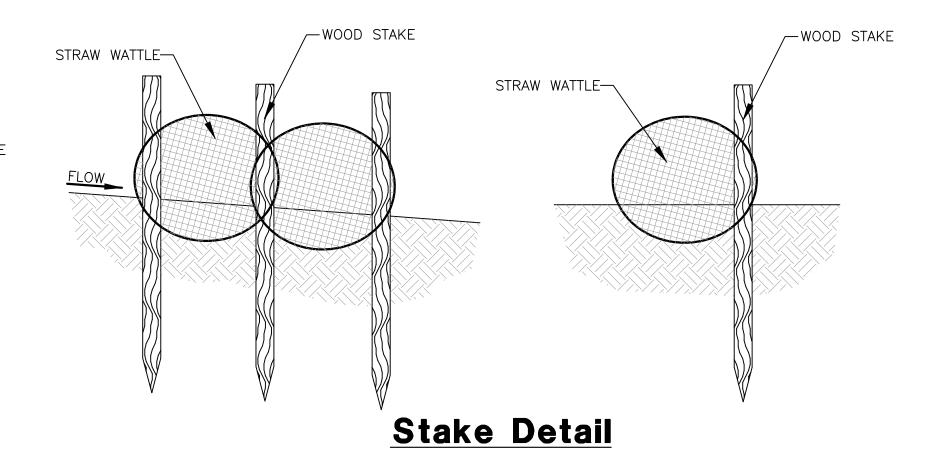
ANCHOR THROUGH

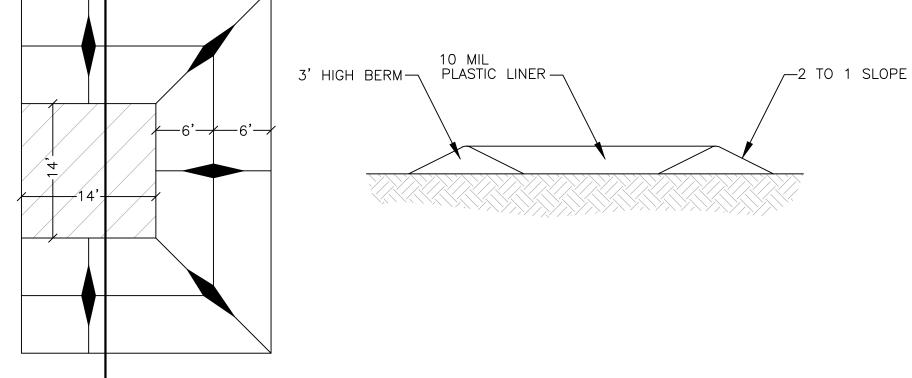
Inlet Box Protection

STORM DRAIN INLET-



Drop Inlet Protection





Silt Fence Detail

Concrete Washout Area w/ 10 mil Plastic Liner





-GRAVEL BAGS

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. NATE REEVE

Project Info. J. NATE REEVE, P.E. Drafter: R. HANSEN Begin Date: MARCH 18, 2011 LISA ESTATES SUBDIVISION PHASE 1 & 2 Number: <u>1714–27</u>

Sheet 6 6 Sheets