

SEWER EASEMENT NOTE

"Sewer easement" means the area on a recorded plat map or other recorded document that is dedicated to the use and installation of sewer facilities. A sewer easement provides a public utility with, the right to install, maintain, operate, repair, remove, replace, or relocate sewer utility facilities; and the rights of ingress and egress within the sewer easement for public utility employees, contractors, and agents. Notwithstanding the foregoing, a public utility shall restore or repair, at the expense of the public utility, any grass, soil, shrubbery, bushes, flowers, other low level vegetation, sprinkler system, or gravel damaged or displaced from the exercise of the easement rights described above. However, if a property owner places improvements to land that interfere with the easement rights described above, the property owner shall bear the risk of loss or damage to those improvements resulting from the exercise of the easement rights described herein.

The Grantor shall not materially change the grade of the Easement Area or place or construct upon the Easement Area any buildings, trees, structural improvements, or other permanent encroachments without the express written permission of the Grantee.

A person may not acquire, whether by adverse possession, prescription, acquiescence, or otherwise, any right, title, or interest in a sewer easement or protected utility easement that is adverse to or interferes with a public utility's full use of the easement for the purposes for which the easement was created.

GEOTECHNICAL NOTE

CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT COMPLETED BY EARTHTEC ENGINEERING AND PREPARED ON JULY 20, 2016.

Surveyor: Aztec Engineering, Inc.
491 North 450 West
Orem, UT 84057
(801) 224-7308

TABULATIONS

TOTAL AREA:	104,286 S.F. / 2.39 ACRES
LOT AREA:	88,991 S.F. / 2.04 ACRES
# OF LOTS:	10
ROAD AREA:	15,295 S.F. / 0.35 ACRES
OPEN SPACE AREA:	0 S.F. / 0.00 ACRES
LANE MILES OF ROAD:	0.03 MILES
ZONE:	R-1-7.5
LAND USE:	MEDIUM HIGH DENSITY RESIDENTIAL

PROJECT NOTES

- DRIVEWAYS SHALL BE LOCATED AS FAR FROM THE INTERSECTION AS PRACTICAL. (LOTS 1, 3, 7, & 8)
- 600 EAST IS A COLLECTOR STATUS STREET WITH LIMITED ACCESS. DRIVEWAY ACCESS MUST BE ACCOMMODATED ON MINOR STREETS WITH THE EXCEPTION OF LOT 2.
- IF LOTS 5 OR 10 INSTALL FENCING, A 12' GATE (MIN.) WILL BE INSTALLED TO PROVIDE ACCESS.

VICINITY MAP

PLAT LEGEND

- SECTION CORNER
- PROPERTY CORNER
- C1 CURVE NUMBER
- BOUNDARY LINE
- SECTION TIE
- PUBLIC UTILITY EASEMENT (P.U.E.) LINE
- LOT LINE
- STREET MONUMENT
- ADDRESS LABEL
- LOT NUMBER

DOMINION ENERGY

Qwestar approves this plat solely for the purpose of confirming that the plat contains public utility easements. Qwestar may require other easements in order to serve this development. This approval does not constitute abrogation or waiver of any other existing rights, obligations or liabilities provided by law or equity. This approval does not constitute acceptance, approval or acknowledgement of any terms contained in the plat, including those set forth in the Owners Dedication and the Notes and does not constitute a guarantee of particular terms of natural gas service. For further information please contact Qwestar's right-of-way department.

Approved this _____ day of _____, 20____, Qwestar Gas Company By: _____ Title: _____

FIRE CHIEF APPROVAL

Approved this _____ day of _____, 20____, By: _____ Title: Payson City Fire Chief

SURVEYOR'S CERTIFICATE

I, AARON D. THOMAS, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND THAT I HOLD A LICENSE IN ACCORDANCE WITH TITLE 58, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSING ACT, UTAH CODE ANNOTATED, 1953 AS AMENDED, LICENSE NUMBER 6418780. I FURTHER CERTIFY THAT BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS, AND EASEMENTS, HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH SECTION 17-23-17, UTAH CODE ANNOTATED, 1953 AS AMENDED, HAVE VERIFIED ALL MEASUREMENTS, AND HAVE PLACED MONUMENTS AS REPRESENTED ON THE PLAT. I FURTHER CERTIFY THAT EVERY EXISTING RIGHT-OF-WAY AND EASEMENT GRANT OF RECORD FOR UNDERGROUND FACILITIES, AS DEFINED IN SECTION 54-8a-2, UTAH CODE ANNOTATED, 1953 AS AMENDED, AND FOR OTHER UTILITY FACILITIES, IS ACCURATELY DESCRIBED ON THIS PLAT, AND THAT THIS PLAT IS TRUE AND CORRECT.

DATE _____ (SEE SEAL BELOW)

BOUNDARY DESCRIPTION

Beginning at the northwest corner of Block 14, Plat K, Payson City Survey, said point being located South 112.41 feet and East 1964.97 feet from the West Quarter Corner of Section 9, Township 9 South, Range 2 East, Salt Lake Base and Meridian; thence South 89°50'53" East along the north line of said Block 14 a distance of 231.00 feet; thence South 0°09'07" West along an existing fence line along the easterly line of Lots 3 and 2 a distance of 293.52 feet; thence along existing fence lines the following three courses and distances: 1) South 1°25'33" West 101.28 feet, 2) North 89°11'02" West 114.92 feet, and 3) South 0°45'01" West 118.69 feet; thence North 89°50'53" West along the south line of said Block 14 a distance of 112.59 feet; thence North 0°09'07" East along the west line of said Block 14 a distance of 512.12 feet to the point of beginning.

Area = 2.394 Acres

Basis of Bearing is North 0°28'12" West along Section Line from the West Quarter Corner of Section 9, Township 9 South, Range 2 East, Salt Lake Base and Meridian to the Northwest Corner of said Section 9.

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, ALL OF THE UNDERSIGNED OWNERS OF ALL OF THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THE MAP, AND SUBJECT TO ANY CONDITIONS AND RESTRICTIONS STATED HEREON, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, BLOCKS, STREETS, AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC.

IN WITNESS WHEREOF, WE HAVE HEREUNTO SET OUR HANDS THIS _____ DAY OF _____, A.D. 20____.

ACKNOWLEDGMENT

STATE OF UTAH, S.S. COUNTY OF UTAH

ON THE _____ DAY OF _____, 20____, PERSONALLY APPEARED BEFORE ME THE SIGNERS OF THE FOREGOING DEDICATION WHO DULY ACKNOWLEDGE TO ME THAT THEY DID EXCUTE THE SAME.

MY COMMISSION EXPIRES _____ NOTARY PUBLIC (SEE SEAL BELOW)

ACCEPTANCE BY LEGISLATIVE BODY

THE MAYOR OF PAYSON CITY, COUNTY OF UTAH, APPROVES THIS SUBDIVISION SUBJECT TO THE CONDITIONS AND RESTRICTIONS STATED HEREON AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC.

THIS _____ DAY OF _____, 20____.

MAYOR

APPROVAL AS TO FORM _____ CITY ATTORNEY

APPROVED _____ ENGINEER (SEE SEAL BELOW)

ATTEST _____ CITY RECORDER (SEE SEAL BELOW)

PLANNING COMMISSION APPROVAL

APPROVED THIS _____ DAY OF _____, 20____, BY THE PAYSON CITY PLANNING COMMISSION.

DIRECTOR - SECRETARY _____ CHAIRPERSON, PLANNING COMMISSION.

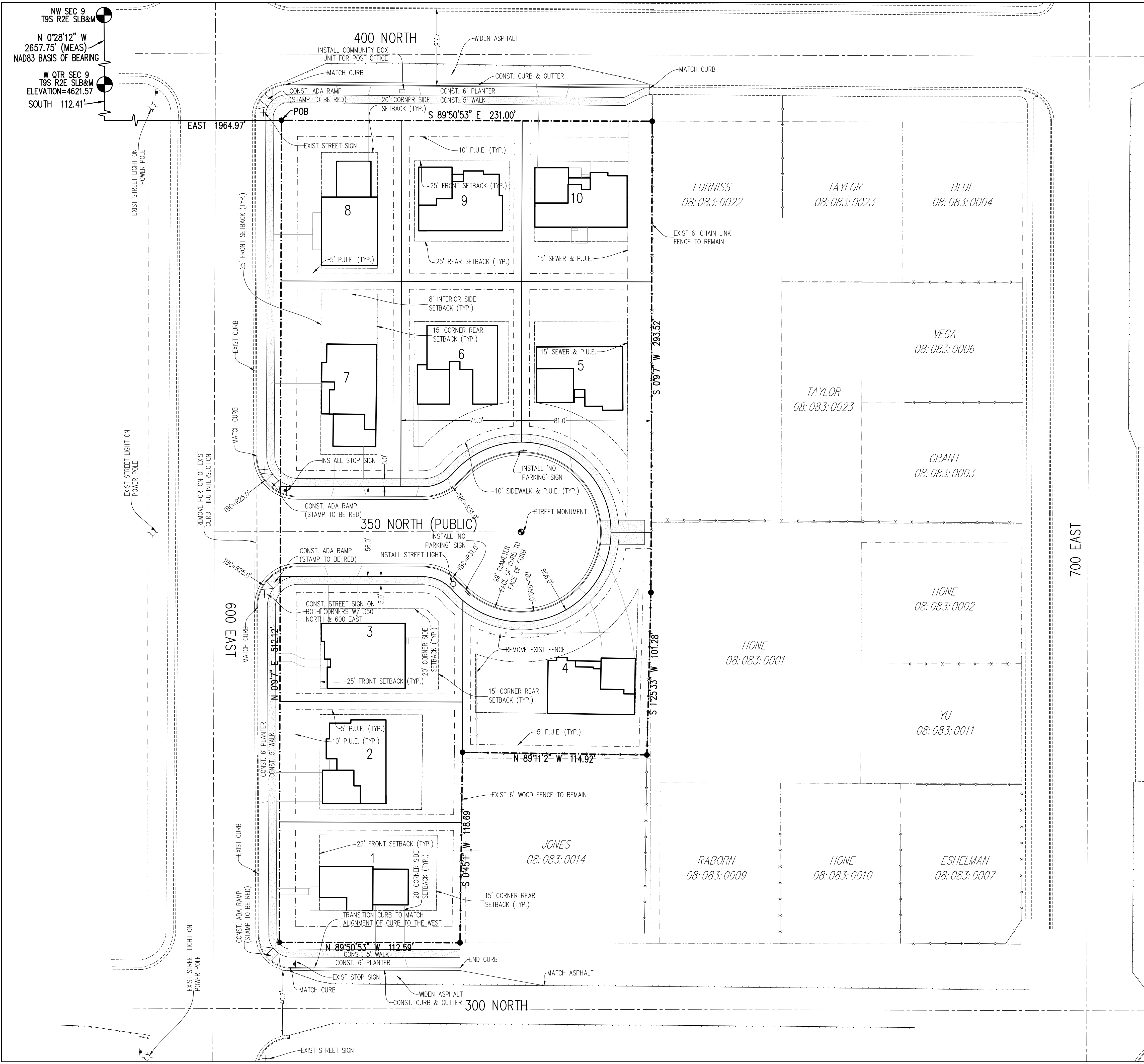
PLAT "A"

NEBO GATEWAY

PAYSON CITY _____ UTAH COUNTY, UTAH

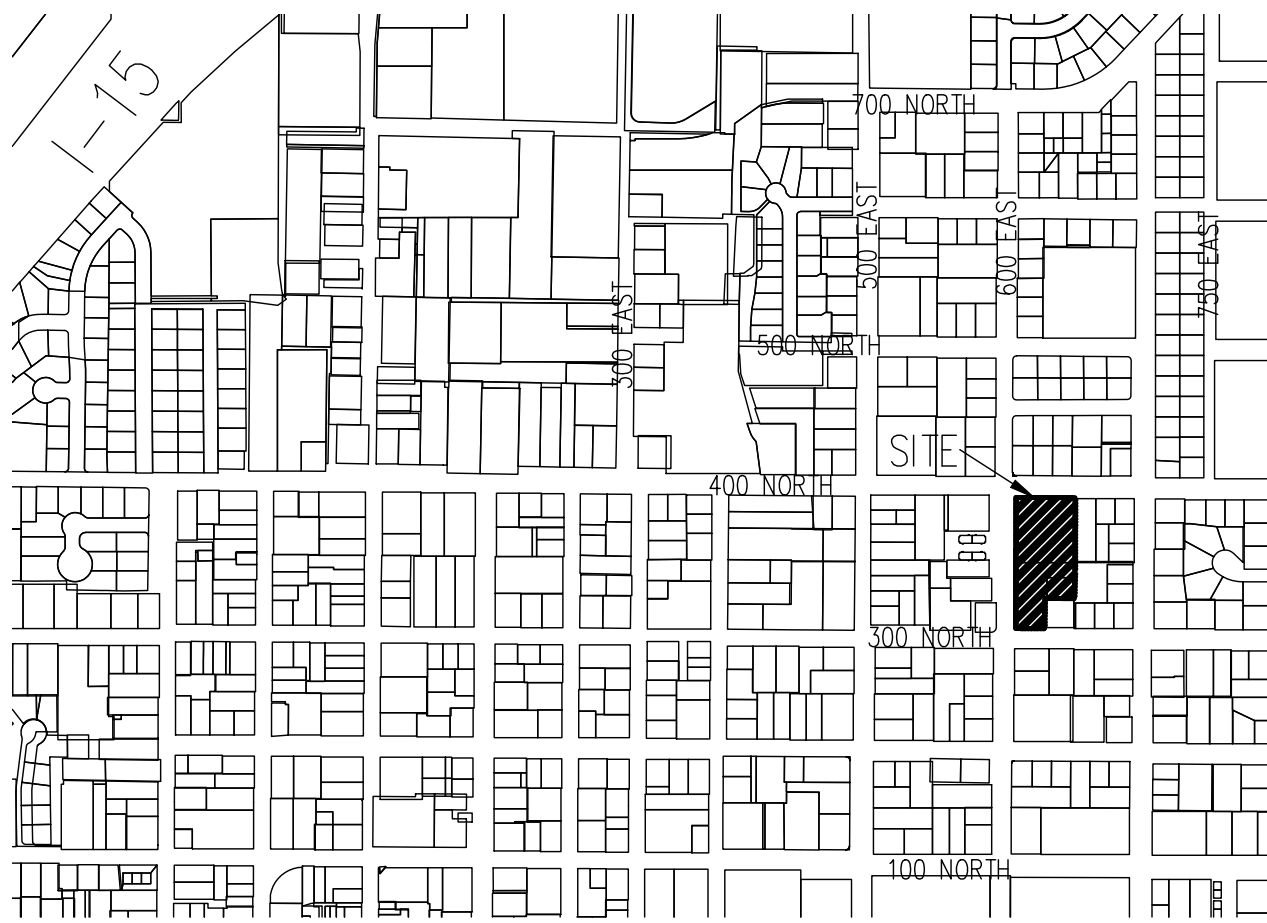
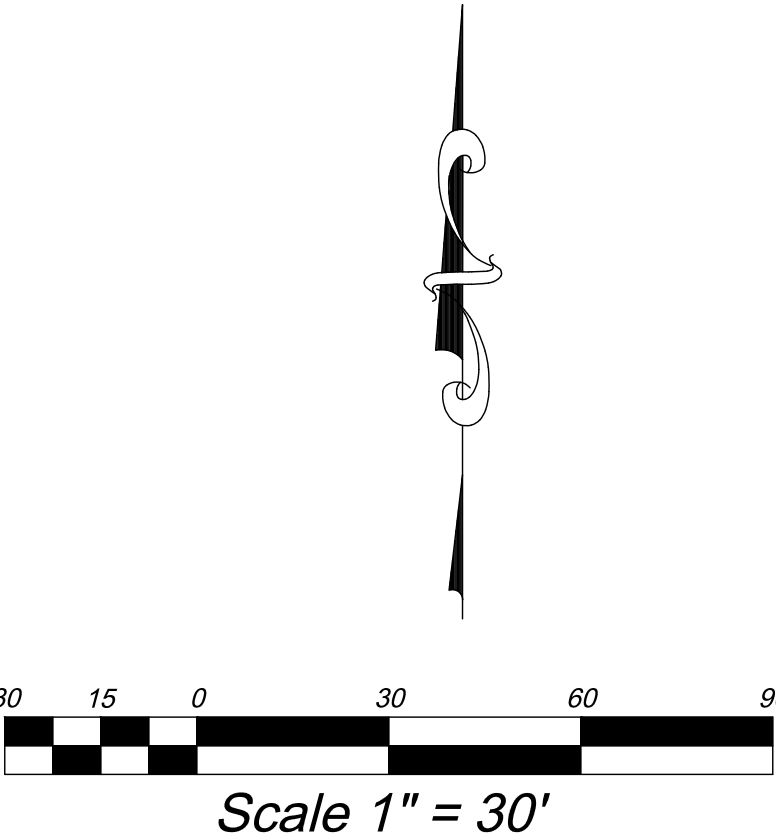
SCALE: 1" = 30 FEET

Surveyor's Seal	Notary Public Seal	City Engineer's Seal	City Recorder Seal
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TABULATIONS		
TOTAL AREA:	104,286 S.F. /	2.39 ACRES
LOT AREA:	88,991 S.F. /	2.04 ACRES
# OF LOTS:	15,295 S.F. /	0.35 ACRES
ROAD AREA:	0 S.F. /	0.00 ACRES
OPEN SPACE AREA:	0.03 MILES	
LANE MILES OF ROAD:	R-1-7.5	
ZONE:		
LAND USE:	MEDIUM HIGH DENSITY RESIDENTIAL	

- GENERAL NOTES:
1. THE CONSTRUCTION DETAILS WILL NEED TO BE CONSISTENT WITH THE RECOMMENDATIONS IDENTIFIED IN THE GEOTECHNICAL REPORT PREPARED FOR THE PROJECT. THE GEOTECHNICAL REPORT INCLUDES A SOILS REPORT AND PAVEMENT DESIGN THAT WILL NEED TO BE INCORPORATED ALONG WITH THE DESIGN GUIDELINES AND STANDARD SPECIFICATIONS OF PAYSON CITY.
 2. ALL ROADWAYS WILL NEED TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS AND THE DESIGN GUIDELINES AND STANDARD SPECIFICATIONS OF THE CITY. PERMANENT ACCESS MUST BE SECURED FOR EACH LOT AND THE ENTIRE FRONTAGE OF THE ADJOINING LOT MUST BE FULLY IMPROVED BEFORE A BUILDING PERMIT IS ISSUED.
 3. THIS SITE IS LOCATED IN FEMA FLOOD ZONE "C" WHICH IS AN AREA OF MINIMAL FLOODING. PANEL 490157 003 C - JANUARY 6, 1981
 4. LIMITS OF DISTURBANCE INCLUDES THE ENTIRE PROPERTY.
 5. ALL IMPROVEMENTS MUST BE COMPLETED IN ACCORDANCE WITH THE ADOPTED REGULATIONS, AND POLICIES OF PAYSON CITY. ANY PROPOSED CHANGES TO THE PROJECT DRAWINGS DURING THE CONSTRUCTION PHASE MUST BE APPROVED BY PAYSON CITY BEFORE THE WORK IS COMPLETED.
 6. PRIOR TO THE IMPROVEMENT OF THE SITE AND CONSTRUCTION OF ANY STRUCTURES, ALL DEBRIS AND WASTE, INCLUDING UNUSED CONSTRUCTION MATERIALS AND ASPHALT WILL NEED TO BE REMOVED FROM THE SITE AND MAY NOT BE USED AS FILL MATERIAL.



VICINITY MAP

SHEET INDEX

- C1 COVER SHEET/SITE PLAN
- U1 UTILITY PLAN
- U2 POWER PLAN
- G1 GRADING & DRAINAGE PLAN
- PP1 350 NORTH & 300 NORTH PLAN/PROFILE
- PP2 SEWER & 400 NORTH PLAN/PROFILE
- SWP1 EROSION CONTROL PLAN
- D1 DETAILS & STORM CALCS

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BENCH MARK		REVISIONS	
WEST QUARTER CORNER, SECTION 9, TOWNSHIP 9 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN ELEVATION = 4621.57 ELEVATION DATUM=NGVD 29	Rev.	Date	Description
	1	8/24/17	REVISED AS PER CITY COMMENTS
	2	9/20/17	REVISED AS PER CITY COMMENTS

Developer: Self-Help Homes

709 North 1890 West #39A
Provo, UT 84601
801-375-2205



David W. Peterson, P.E., License #270393
12 West 100 North, Suite 201, American Fork, UT 84003
P: (801) 756-4504; david@excelcivil.com

NEBO GATEWAY SUBIVISION

PAYSON

UTAH

Drawn by:
G.J.Y.
Designed by:
G.J.Y.
Checked by:
D.W.P.

COVER SHEET/
SITE PLAN

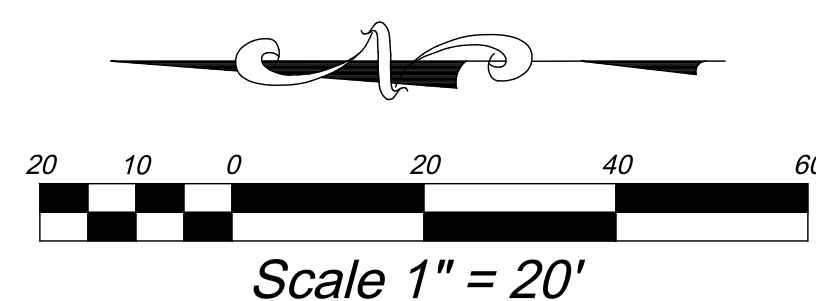
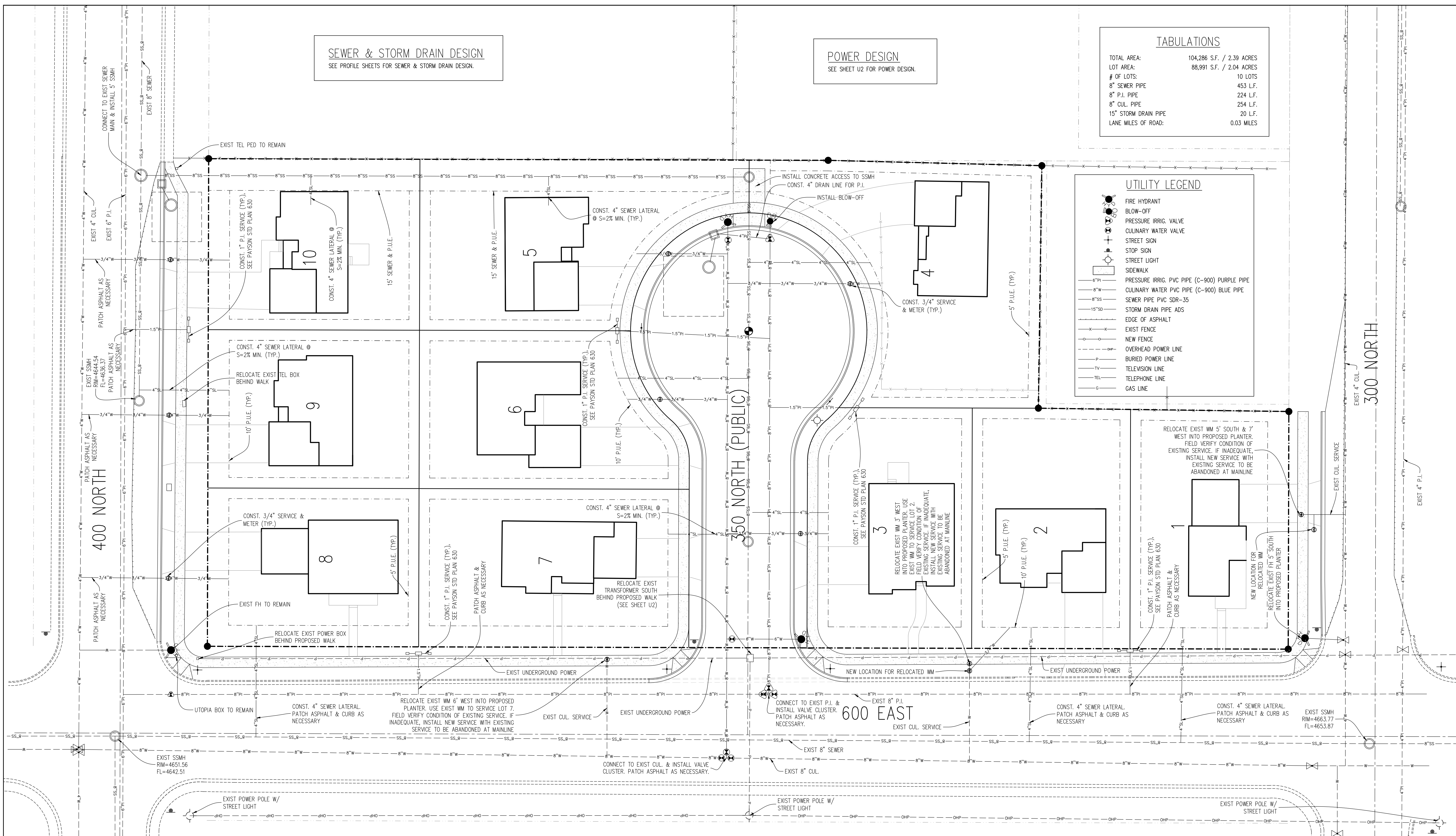
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1"=30'
Date:
07/06/17
C1

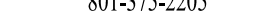
SEE PROFILE SHEETS FOR SEWER & STORM DRAIN DESIGN.

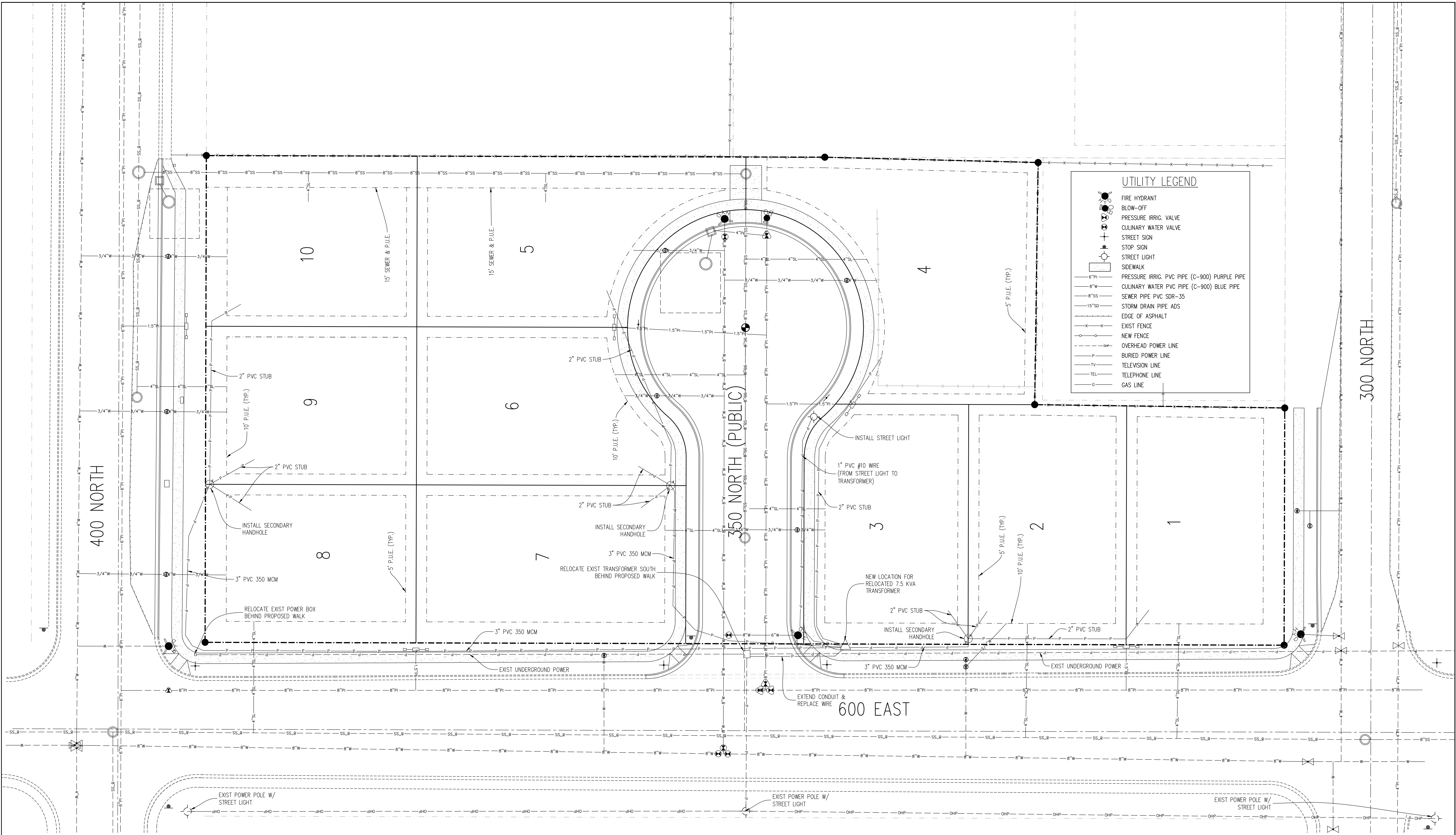
SEE SHEET U2 FOR POWER DESIGN.

TOTAL AREA:	104,286 S.F. / 2.39 ACRES
LOT AREA:	88,991 S.F. / 2.04 ACRES
# OF LOTS:	10 LOTS
8" SEWER PIPE	453 L.F.
8" P.I. PIPE	224 L.F.
8" CUL. PIPE	254 L.F.
15" STORM DRAIN PIPE	20 L.F.
LANE MILES OF ROAD:	0.03 MILES

	FIRE HYDRANT
	BLOW-OFF
	PRESSURE IRRIG. VALVE
	CULINARY WATER VALVE
	STREET SIGN
	STOP SIGN
	STREET LIGHT
	SIDEWALK
	PRESSURE IRRIG. PVC PIPE (C-900) PURPLE PIPE
	CULINARY WATER PVC PIPE (C-900) BLUE PIPE
	SEWER PIPE PVC SDR-35
	STORM DRAIN PIPE ADS
	EDGE OF ASPHALT
	EXIST FENCE
	NEW FENCE
	OVERHEAD POWER LINE
	BURIED POWER LINE
	TELEVISION LINE
	TELEPHONE LINE
	GAS LINE

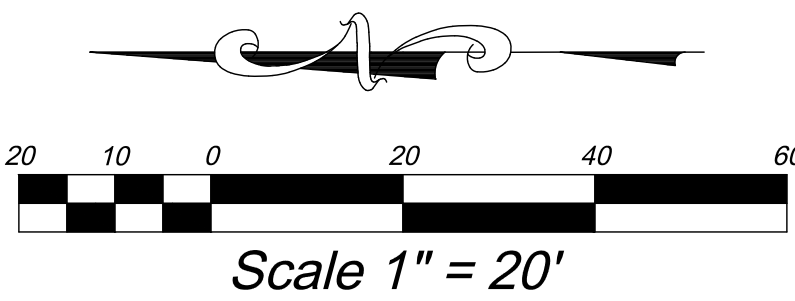


BENCH MARK		REVISONS		Developer: Self-Help Homes 709 North 1890 West #39A Provo, UT 84601 801-575-2205		NEBO GATEWAY SUBIVISION	
WEST QUARTER CORNER, SECTION 9, TOWNSHIP 9 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN ELEVATION = 4621.57 ELEVATION DATUM=NGVD 29	Rev.	Date	Description	 EXCEL ENGINEERING David W. Peterson, P.E., License #270393 12 West 1400 North, Suite 201, American Fork, UT 84003 P: (801) 756-4504; david@excelcivil.com	PAYSON		UTAH
	1	8/24/17	REVISED AS PER CITY COMMENTS		Drawn by: G.J.Y.	UTILITY PLAN	Scale: 1"=20'
	2	9/20/17	REVISED AS PER CITY COMMENTS		Designed by: G.J.Y.		Date: 07/06/17
					Checked by:		U1
					D.W.P.		



UTILITY LEGEND

- FIRE HYDRANT
- BLOW-OFF
- PRESSURE IRRIG. VALVE
- CULINARY WATER VALVE
- STREET SIGN
- STOP SIGN
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- PRESSURE IRRIG. PVC PIPE (C-900) PURPLE PIPE
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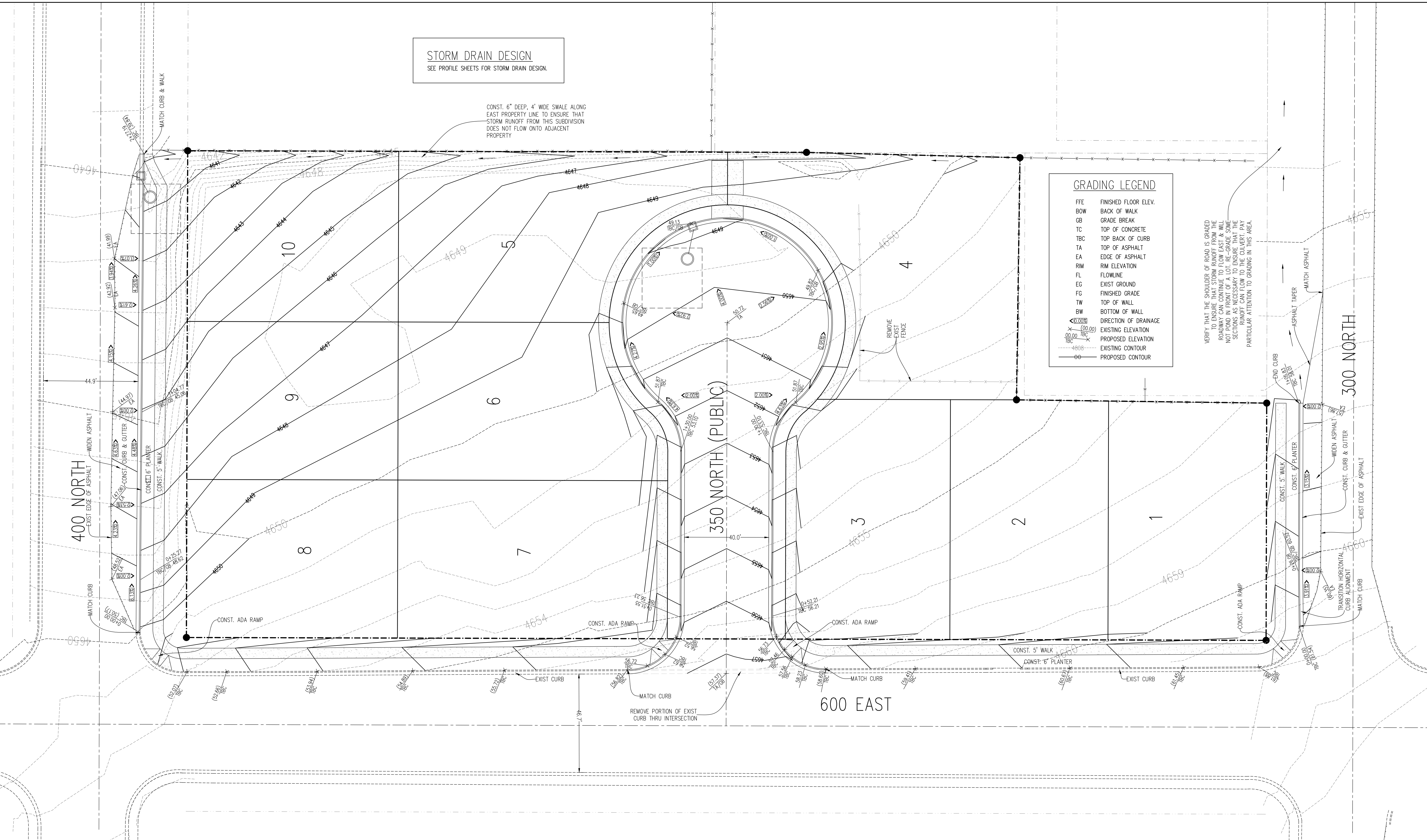


BENCH MARK		REVISIONS		Developer: Self-Help Homes		NEBO GATEWAY SUBIVISION	
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		2	9/20/17	REVISED AS PER CITY COMMENTS		G.J.Y.	Scale: 1"=20'
						Designed by:	Date: 07/06/17
						G.J.Y.	U2
						Checked by:	
						D.W.P.	

709 North 1890 West #39A
Provo, UT 84601
801-375-2205

EXCEL ENGINEERING

David W. Peterson, P.E., License #270393
12 West 100 North, Suite 201, American Fork, UT 84003
P. (801) 756-4504; david@excelecivil.com



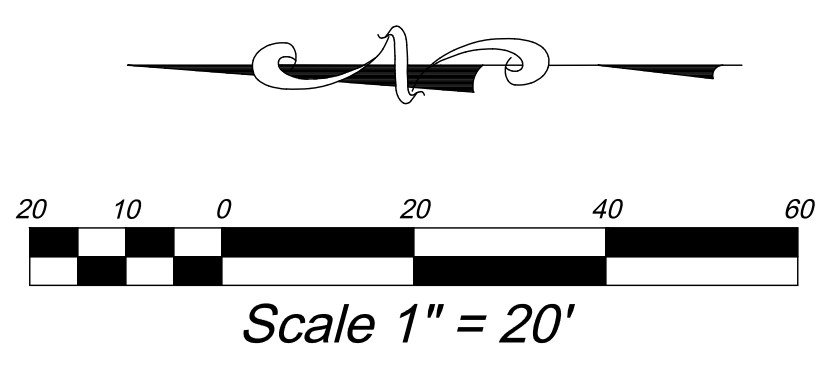
STORM DRAIN DESIGN
SEE PROFILE SHEETS FOR STORM DRAIN DESIGN.

CONST. 6" DEEP, 4' WIDE SWALE ALONG EAST PROPERTY LINE TO ENSURE THAT STORM RUNOFF FROM THIS SUBDIVISION DOES NOT FLOW ONTO ADJACENT PROPERTY

GRADING LEGEND

FFE	FINISHED FLOOR ELEV.
BOW	BACK OF WALK
GB	GRADE BREAK
TC	TOP OF CONCRETE
TBC	TOP BACK OF CURB
TA	TOP OF ASPHALT
EA	EDGE OF ASPHALT
RL	RIM ELEVATION
FL	FLOWLINE
EG	EXIST. GROUND
FG	FINISHED GRADE
TW	TOP OF WALL
BW	BOTTOM OF WALL
→	DIRECTION OF DRAINAGE
X (00.00)	EXISTING ELEVATION
X (00.00) TBC	PROPOSED ELEVATION
---	EXISTING CONTOUR
---	PROPOSED CONTOUR

VERIFY THAT THE SHOULDER OF ROAD IS GRADED TO ENSURE THAT STORM RUNOFF FROM THE ROADWAY CAN CONTINUE TO FLOW EAST & WILL NOT POND IN FRONT OF A LOT. RE-GRADE SOME SECTIONS AS NECESSARY TO ENSURE THAT THE RUNOFF CAN FLOW TO THE CULVERT. PAY PARTICULAR ATTENTION TO GRADING IN THIS AREA.



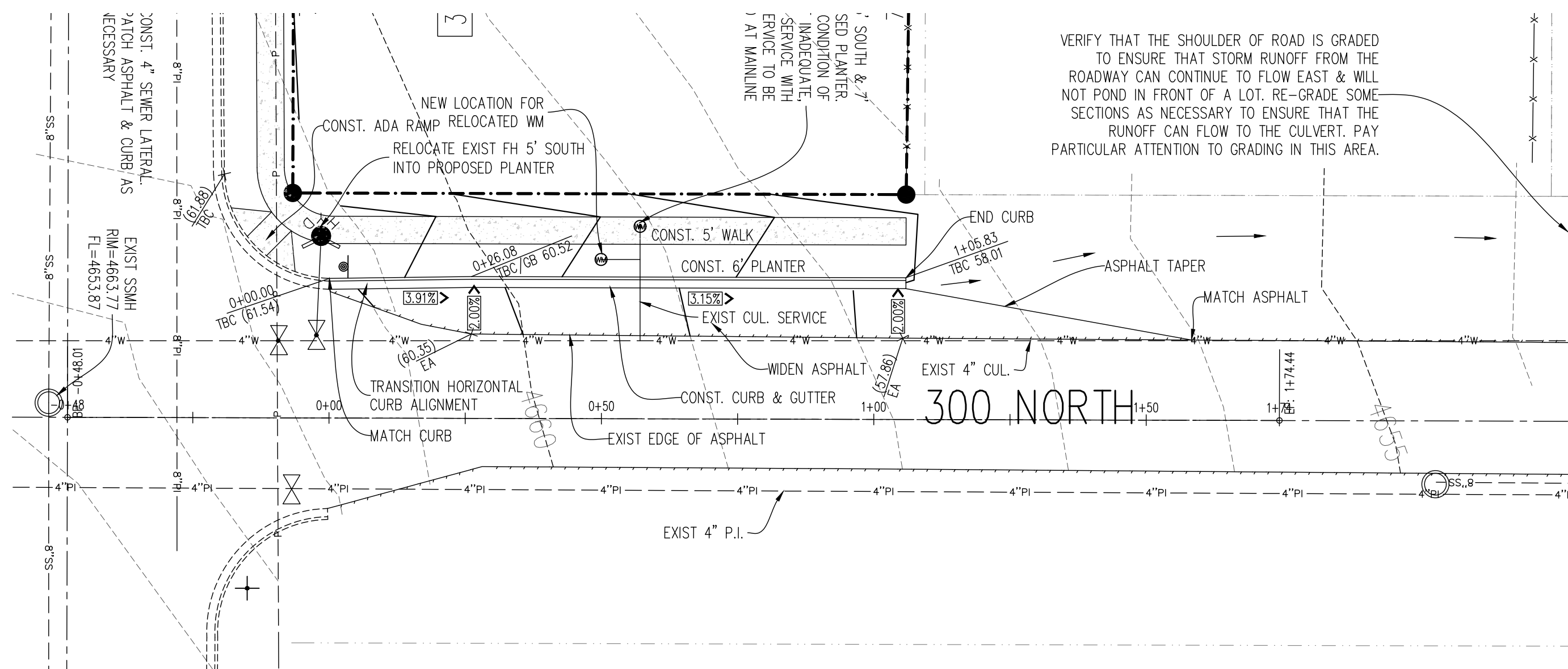
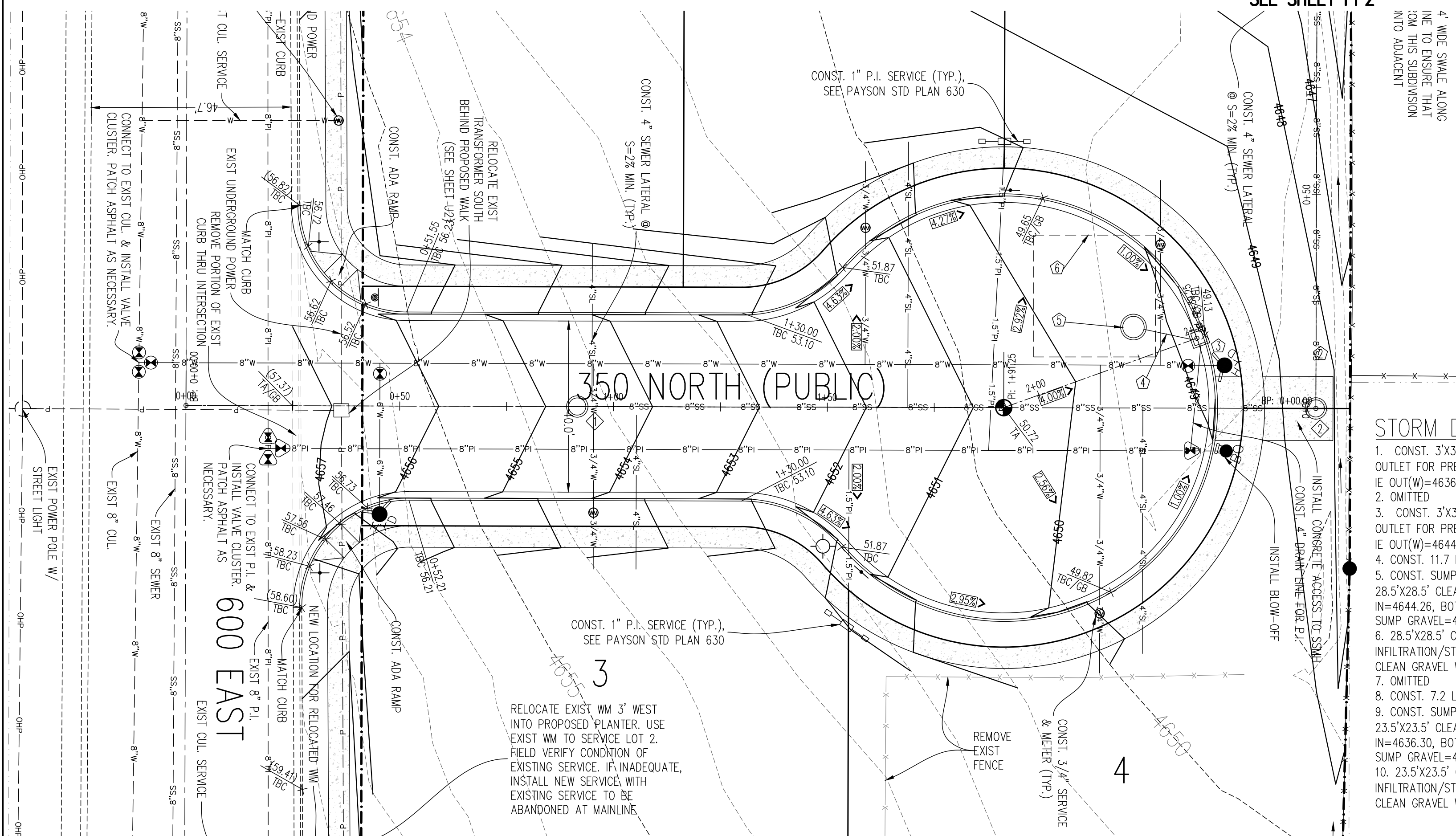
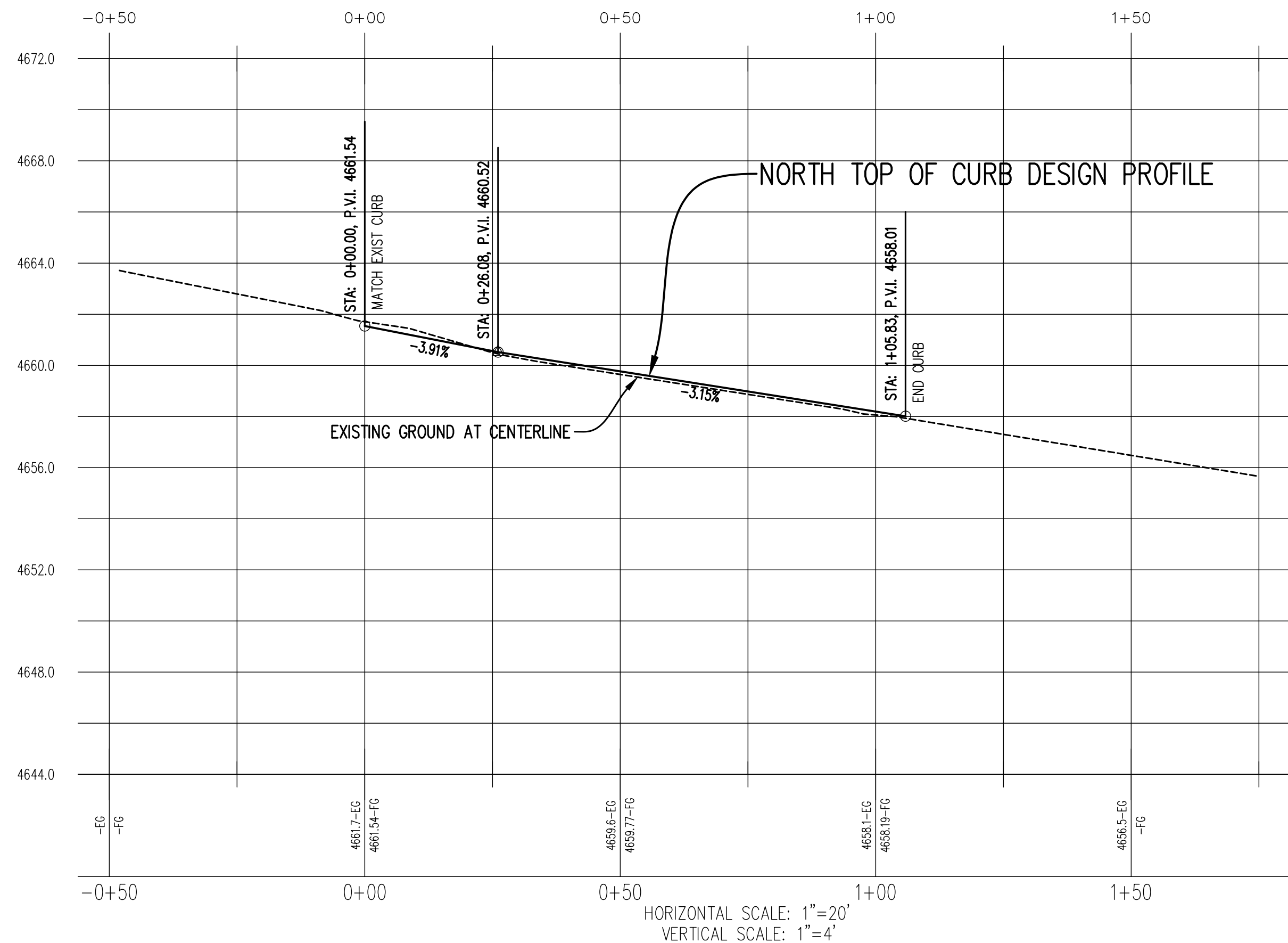
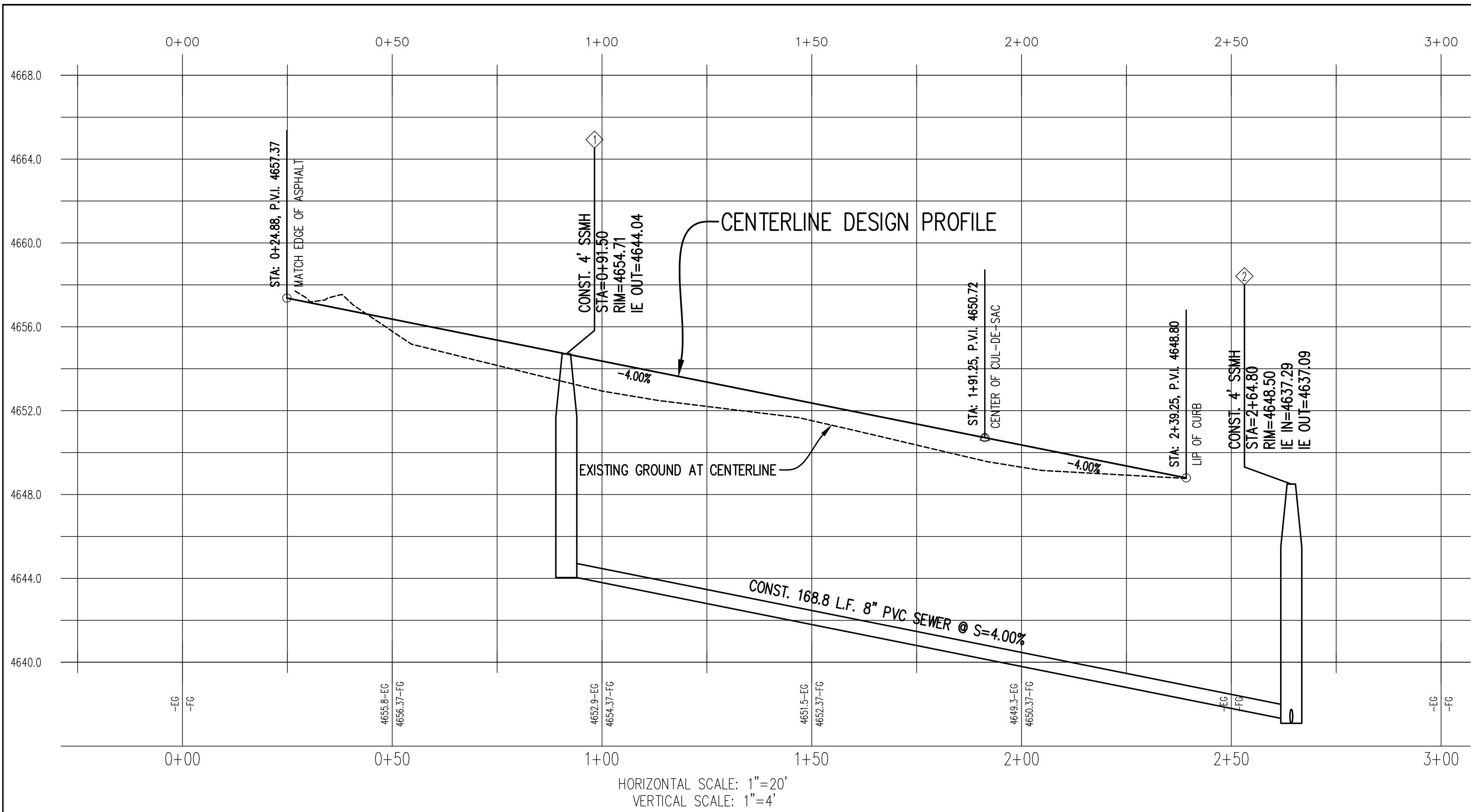
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709 North 1890 West #39A
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ENGINEERING

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P: (801) 756-4504; david@excelecivil.com

NEBO GATEWAY SUBIVISION		UTAH
PAYSON		
Drawn by: G.J.Y.	GRADING & DRAINAGE PLAN	Scale: 1"=20'
Designed by: G.J.Y.		Date: 07/06/17
Checked by: D.W.P.		G1



- STORM DRAIN KEYED NOTES**
1. CONST. 3'X3' INLET BOX W/ SNOUT TYPE 18F OVER WEST OUTLET FOR PRE-TREATMENT, TBC=4640.22, GRATE=4639.72, 15" IE OUT(W)=4636.37, BOTTOM OF BOX=4633.37
 2. OMITTED
 3. CONST. 3'X3' INLET BOX W/ SNOUT TYPE 18F OVER WEST OUTLET FOR PRE-TREATMENT, TBC=4649.13, GRATE=4648.63, 15" IE OUT(W)=4644.38, BOTTOM OF BOX=4641.38
 4. CONST. 11.7 L.F. 15" ADS HP STORM @ S=1.00%
 5. CONST. SUMP MANHOLE PER PAYSON STD PLAN 343 W/ 28.5'X28.5' CLEAN GRAVEL AROUND SUMP, RIM=4649.20, IE IN=4644.26, BOTTOM OF SUMP MANHOLE=4639.20, BOTTOM OF SUMP GRAVEL=4637.20
 6. 28.5'X28.5' CLEAN GRAVEL FOOTPRINT OF INFILTRATION/STORAGE AREA FOR 100-YR STORM EVENT. WRAP CLEAN GRAVEL WITH MIRAFI FABRIC PER PAYSON SUMP DETAIL.
 7. OMITTED
 8. CONST. 7.2 L.F. 15" ADS HP STORM @ S=1.00%
 9. CONST. SUMP MANHOLE PER PAYSON STD PLAN 343 W/ 23.5'X23.5' CLEAN GRAVEL AROUND SUMP, RIM=4640.77, IE IN=4636.30, BOTTOM OF SUMP MANHOLE=4630.77, BOTTOM OF SUMP GRAVEL=4628.77
 10. 23.5'X23.5' CLEAN GRAVEL FOOTPRINT OF INFILTRATION/STORAGE AREA FOR 100-YR STORM EVENT. WRAP CLEAN GRAVEL WITH MIRAFI FABRIC PER PAYSON SUMP DETAIL.

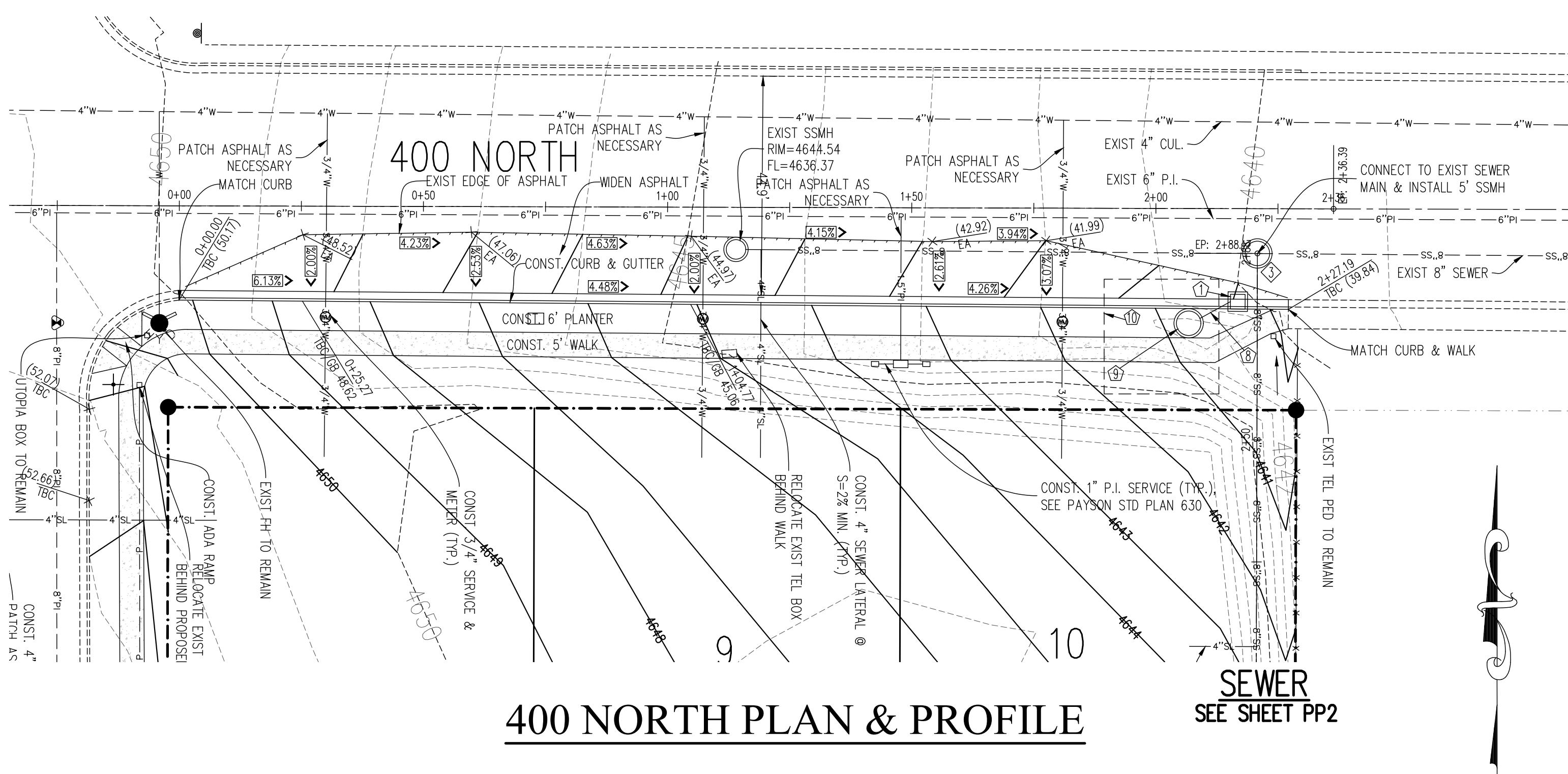
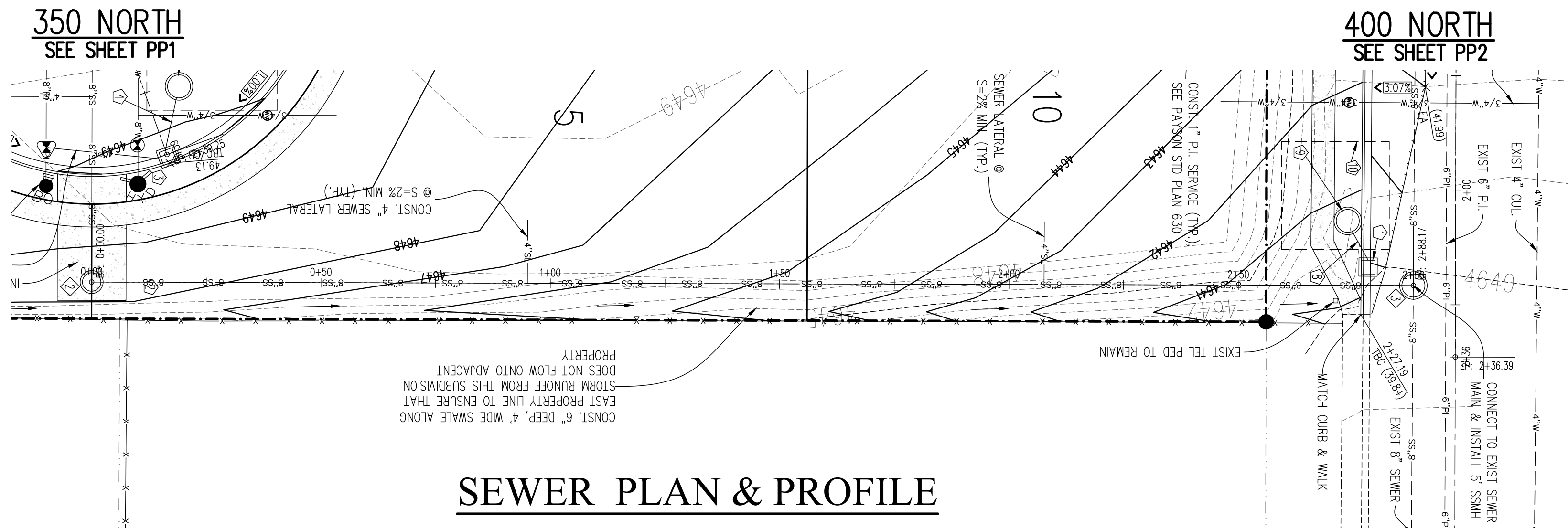
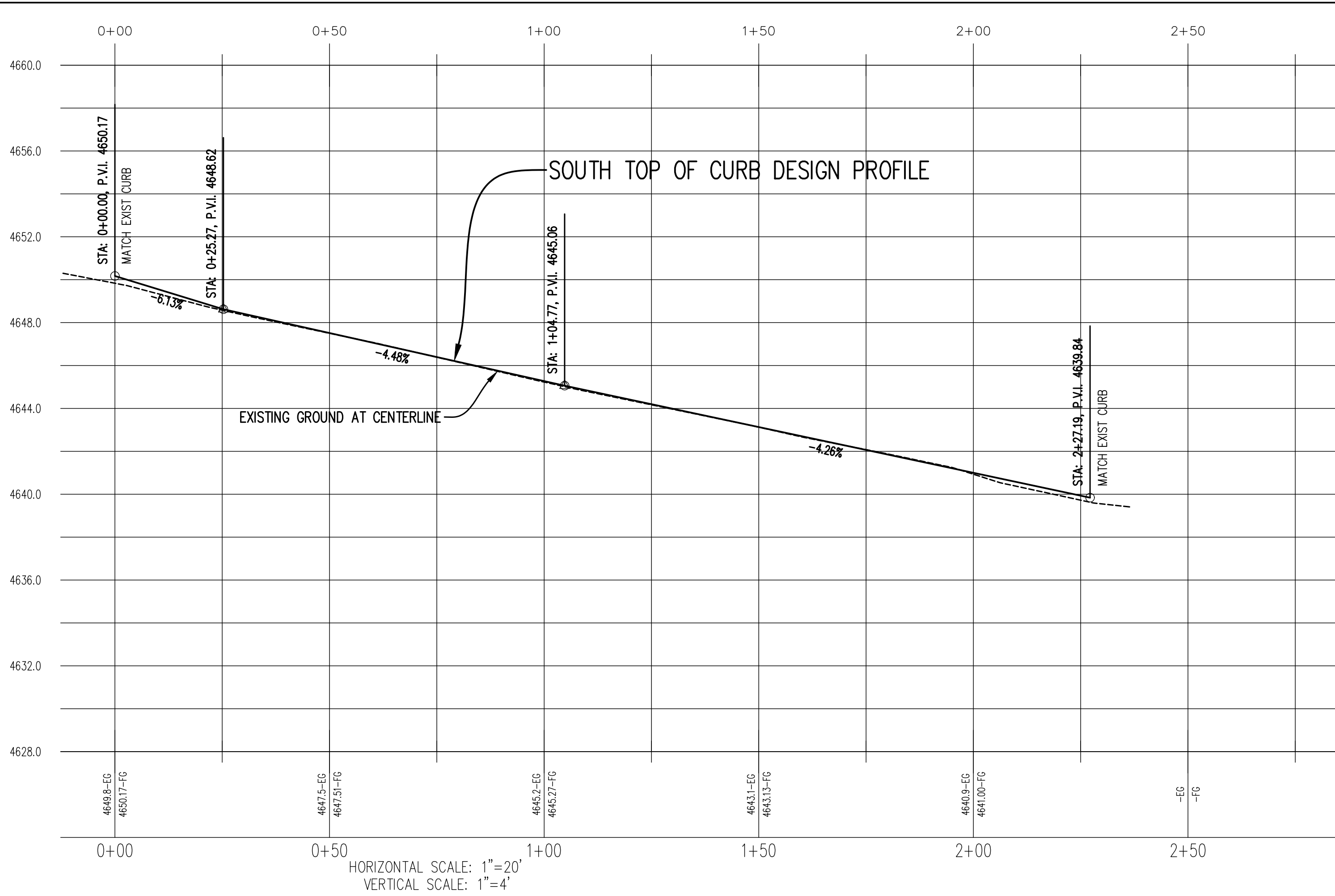
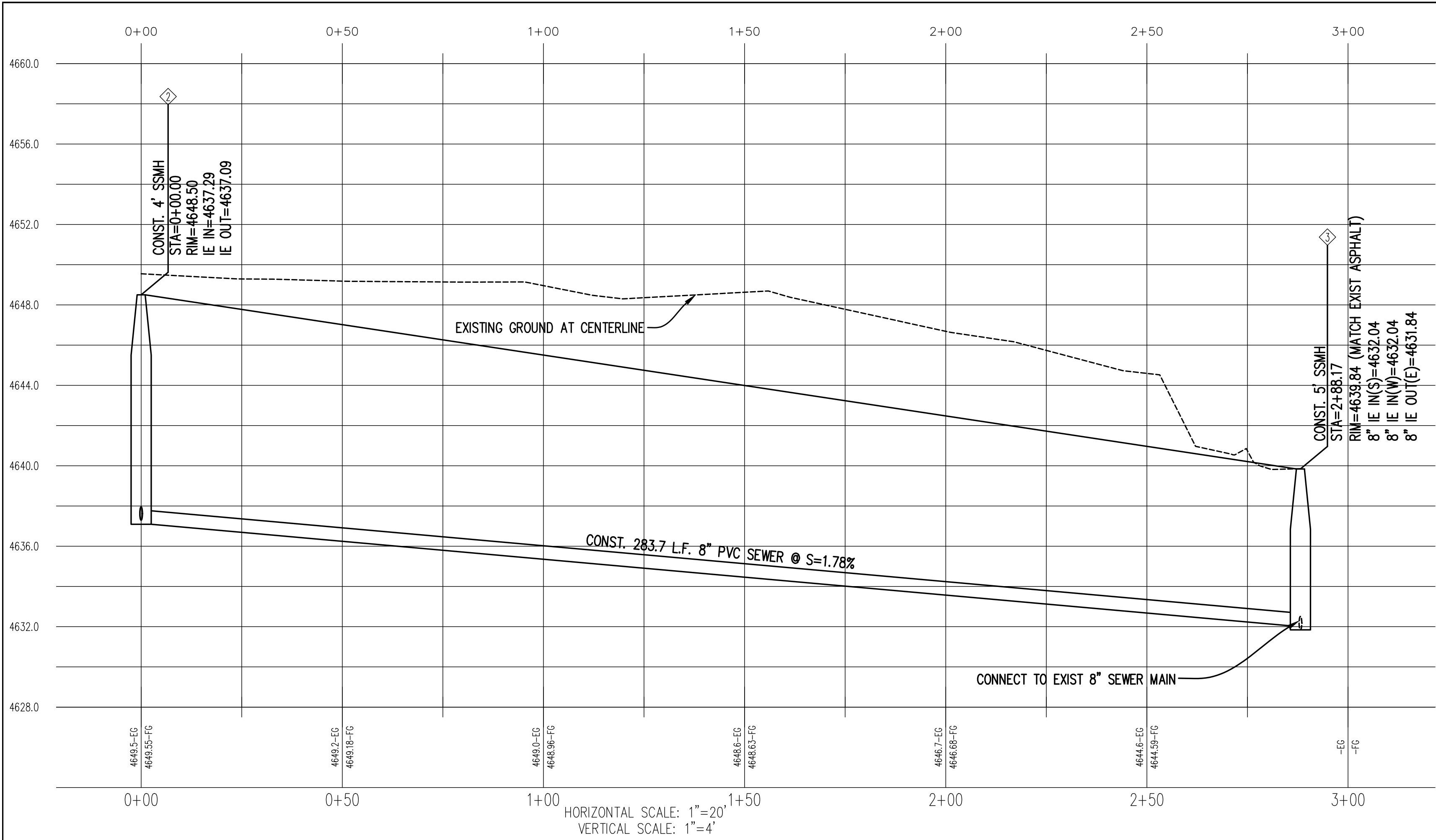
350 NORTH PLAN & PROFILE

300 NORTH PLAN & PROFILE



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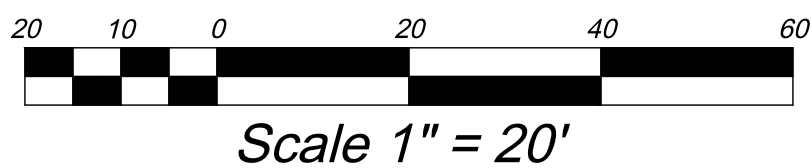
Developer: Self-Help Homes 709 North 1890 West #39A Provo, UT 84601 801-375-2205		NEBO GATEWAY SUBIVISION PAYSON UTAH	
David W. Peterson, P.E., License #270393 12 West 100 North, Suite 201, American Fork, UT 84003 P: (801) 756-4504; david@excelcivil.com		Drawn by: G.J.Y.	Scale: 1"=30'
		Designed by: G.J.Y.	Date: 07/06/17
		Checked by: D.W.P.	PP1



SEWER PLAN & PROFILE

STORM DRAIN KEYED NOTES

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2	9/20/17	REVISED AS PER CITY COMMENTS

Developer: Self-Help Homes 709 North 1890 West #39A Provo, UT 84601 801-375-2205		NEBO GATEWAY SUBIVISION PAYSON UTAH	
EXCELE ENGINEERING David W. Peterson, P.E., License #270393 12 West 100 North, Suite 201, American Fork, UT 84003 P: (801) 756-4504; david@excelecivil.com		Drawn by: G.J.Y. Designed by: G.J.Y. Checked by: D.W.P.	SEWER & 400 NORTH PLAN/PROFILE Scale: 1"=30' Date: 07/06/17 PP2

BMP: Catch Basin Cleaning

CBC



PROGRAM ELEMENTS

- ☐ New Development
- ☐ Residential
- ☐ Commercial Activities
- ☐ Industrial Activities
- ☐ Municipal Facilities
- ☐ Illegal Discharges

DESCRIPTION:

Maintain catch basin and stormwater inlets on a regular basis to remove pollutants, reduce high pollutant concentrations during the first flush of storms, prevent clogging of the downstream conveyance system, and restore the catch basins' sediment trapping capacity. A catch basin is distinguished from a stormwater inlet by having at its base a sediment pump designed to catch and retain sediments below the overflow point. This information sheet focuses on the cleaning of accumulated sediments from catch basins.

APPROACH:

Regular maintenance of catch basins and inlets is necessary to ensure their proper functioning. Clogged catch basins are not only useless but may act as a source of sediments and pollutants. In general, the key to effective catch basins are:

- ▶ At least annual inspections,
- ▶ Prioritize maintenance to clean catch basins and inlets in areas with the highest pollutant loading,
- ▶ Clean catch basins in high pollutant load areas just before the wet season to remove sediments and debris accumulated during the summer,
- ▶ Keep accurate logs of the number of catch basins cleaned,
- ▶ Record the amount of waste collected.

LIMITATIONS:

There are no major limitations to this best management practice.

MAINTENANCE:

Regular inspection of public and private catch basins and inlets is necessary to ensure their proper functioning. Clogged catch basins are not only useless but may act as a source of sediments and pollutants. In general, the keys to effective catch basins are:

- ▶ Annual/monthly inspection of public and private facilities to ensure structural integrity, a clean sump, and a stenciling of catch basins and inlets,
- ▶ Keep logs of the number of catch basins cleaned,
- ▶ Record the amount of waste collected.

Adapted from Salt Lake County BMP Fact Sheet

TARGETED POLLUTANTS

- Sediment
- Nutrients
- Heavy Metals
- Toxic Materials
- Oxygen Demanding Substances
- Oil & Grease
- Biochemical Materials
- Bacteria & Viruses

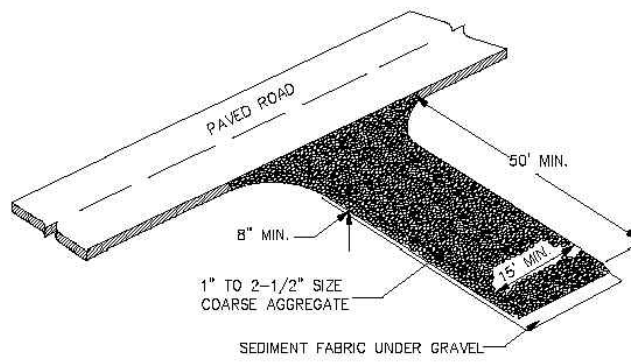
IMPACT

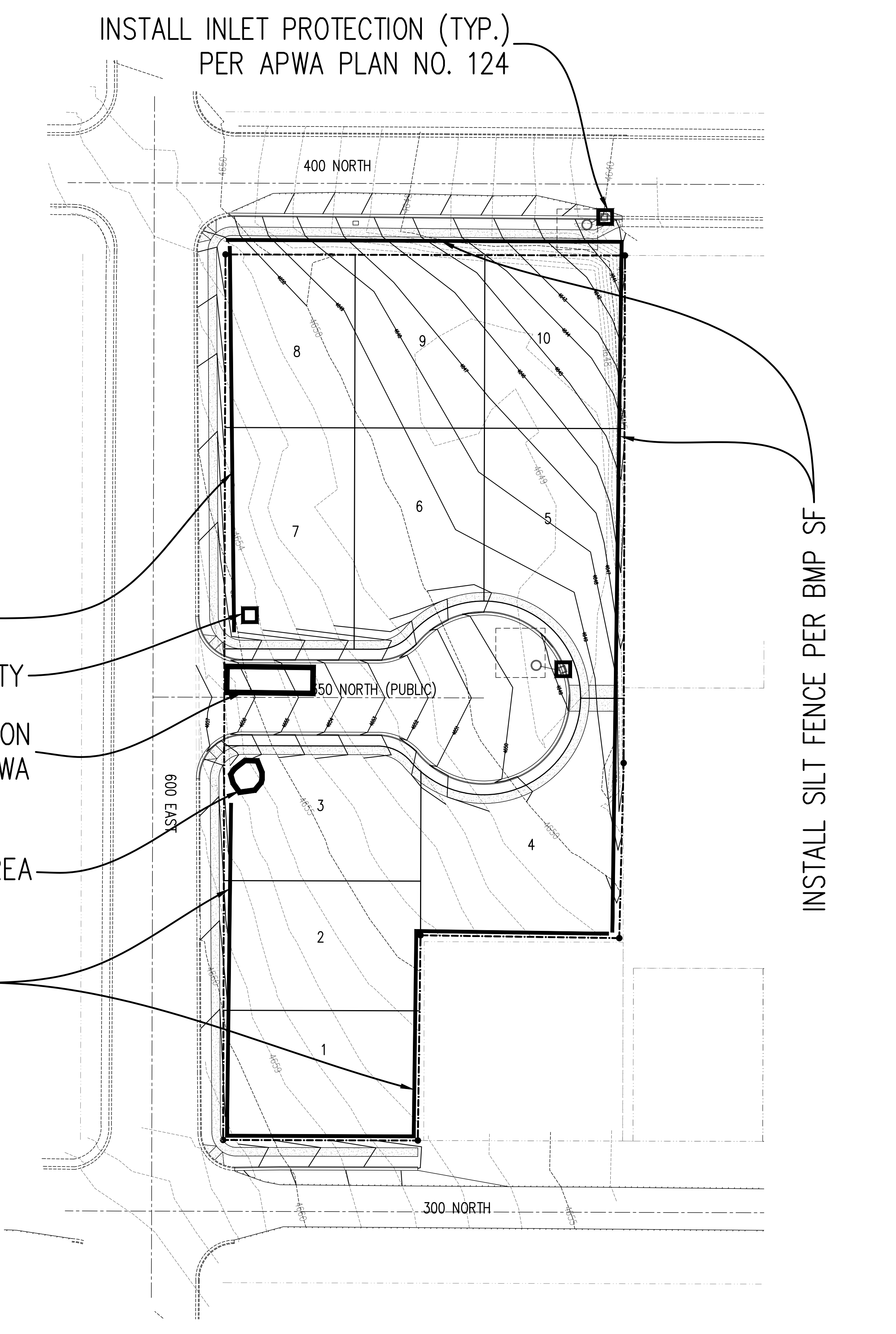
- High Impact
- Medium Impact
- ☐ Low or Unknown Impact

IMPLEMENTATION REQUIREMENTS

- Capital Costs
- O&M Costs
- Regulatory
- Training
- Staffing
- Administrative

■ High
■ Medium
☐ Low

BMP: Stabilized Construction Entrance and Wash Area	SCEWA
 <p>PAVED ROAD</p> <p>30' MIN.</p> <p>8\"</p> <p>1\" to 3-1/2\" SIZE COARSE AGGREGATE</p> <p>SEDIMENT FABRIC UNDER GRAVEL</p>	<p>OBJECTIVES</p> <ul style="list-style-type: none"> <input type="checkbox"/> Housekeeping Practices <input type="checkbox"/> Contain Waste <input type="checkbox"/> Minimize Disturbed Areas <input type="checkbox"/> Stabilize Disturbed Areas <input type="checkbox"/> Protect Slopes/Channels <input type="checkbox"/> Control Site Perimeter <input type="checkbox"/> Control Internal Erosion
<p>DESCRIPTION:</p> <p>A stabilized pad of crushed stone located where construction traffic enters or leaves the site from or to paved surface. The area can be used to spray off vehicles before they leave the site.</p>	
<p>APPLICATIONS:</p> <p>At any point of ingress or egress at a construction site where adjacent traveled way is paved. Generally applies to sites over 2 acres unless special conditions exist.</p>	
<p>INSTALLATION/APPLICATION CRITERIA:</p> <ul style="list-style-type: none"> ▶ Clear and grub area and grade to provide maximum slope of 2%. ▶ Compact subgrade and place filter fabric if desired (recommended for entrances to remain for more than 3 months). ▶ Place coarse aggregate, 1 to 2-1/2 inches in size, to a minimum depth of 8 inches. ▶ Provide water to the area that can be used to spray off vehicles as needed to prevent the tracking of mud off of the construction site. This may not be needed during dry periods of work, but is needed when construction is proceeding under wet conditions. ▶ Provide berming as needed to prevent sediment laden wash water from entering storm water facilities or other water bodies, or leaving the site. 	<p>Adapted from Salt Lake County BMP Fact Sheet</p> <p>TARGETED POLLUTANTS</p> <ul style="list-style-type: none"> ■ Sediment <input type="checkbox"/> Nutrients <input type="checkbox"/> Toxic Materials <input type="checkbox"/> Oil & Grease <input type="checkbox"/> Radioactive Materials <input type="checkbox"/> Other Waste <ul style="list-style-type: none"> ■ High Impact ■ Medium Impact <input type="checkbox"/> Low or Unknown Impact
<p>LIMITATIONS:</p> <ul style="list-style-type: none"> ▶ Requires periodic top dressing with additional stones. ▶ Should be used in conjunction with street sweeping on adjacent public right-of-way. ▶ Must be situated such that waste water does not run off site. 	
<p>MAINTENANCE:</p> <ul style="list-style-type: none"> ▶ Inspect daily for loss of gravel or sediment buildup. ▶ Inspect adjacent roadway for sediment deposit and clean by shoveling and sweeping. ▶ Repair entrance and replace gravel as required to maintain control in good working condition. ▶ Expand stabilized area as required to accommodate traffic and prevent erosion at driveways. 	<p>IMPLEMENTATION REQUIREMENTS</p> <ul style="list-style-type: none"> ■ Capital Costs ■ O&M Costs ■ Maintenance <input type="checkbox"/> Training <p>■ High ■ Medium <input type="checkbox"/> Low</p>



Scale 1" = 40'

REVISIONS			Developer: Self-Help Homes	NEBO GATEWAY SUBDIVISION		
Rev.	Date	Description	709 North 1890 West #39A Provo, UT 84601 801-375-2205	PAYSON	UTAH	
1	8/24/17	REVISED AS PER CITY COMMENTS	 <p>EXCEL ENGINEERING David W. Peterson, P.E., License #270393 12 West 100 North, Suite 201, American Fork, UT 84003 P: (801) 756-4504; david@excelcivil.com</p>	Drawn by: G.J.Y.	EROSION CONTROL PLAN	Scale: 1"=40'
2	9/20/17	REVISED AS PER CITY COMMENTS		Designed by: G.J.Y.		Date: 07/06/17
				Checked by: D.W.P.		SWP1

September 20, 2017

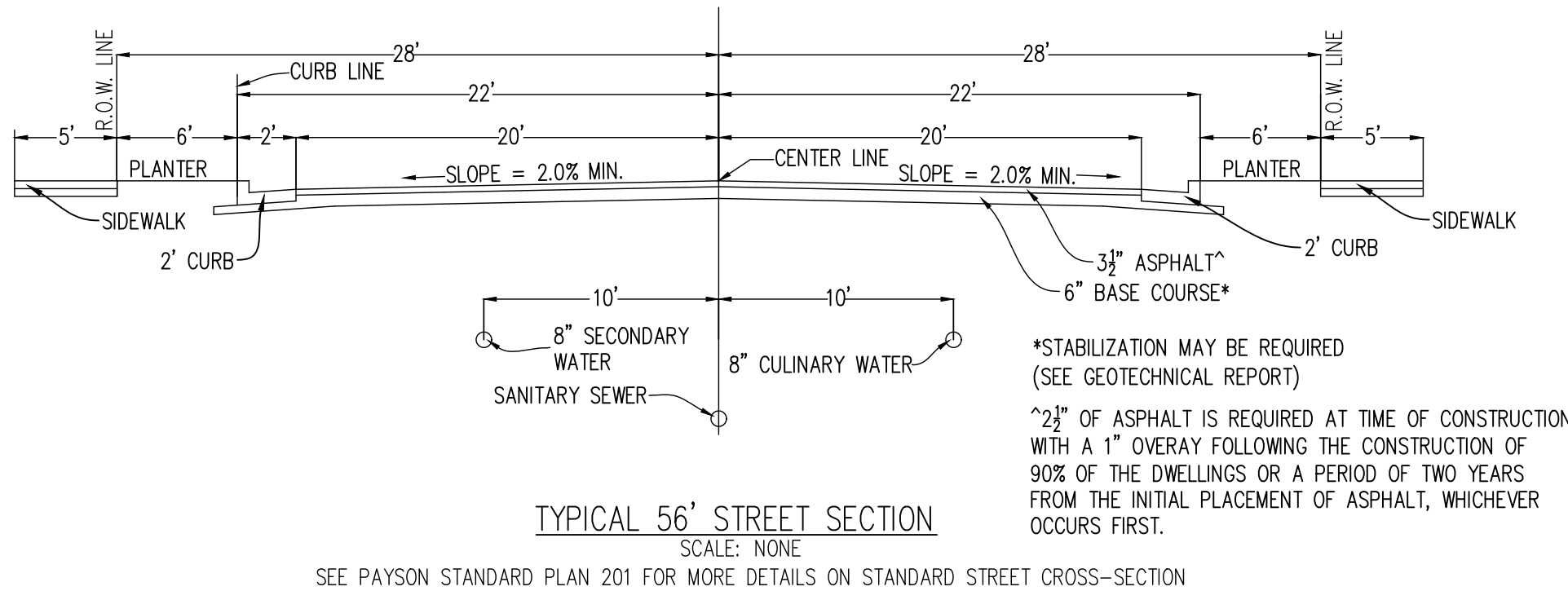
This subdivision is located at 400 North and 600 East. The storm water from this site will be retained in two separate retention sumps. The two subareas are shown on the adjacent 'Subarea Map'. The calculations for the retention volume required are based on the Payson City precipitation data for the 100-year storm event.

The infiltration rate was obtained from a percolation test performed at this site. The percolation test is attached. The rate was determined to be 15 minutes per inch.

The storm runoff for the 'South Sump Subarea' is to be stored in a Payson City standard sump located in the street with gravel around the sump. The storage/infiltration area will consist of a 28.5'x28.5' area around the sump that shall have imported drainrock wrapped with mirafi fabric. This provides a storage volume of 3,355 c.f. which exceeds the required storage volume of 3,276 c.f. See the adjacent spreadsheet for calculations.

The storm runoff for the 'North Sump Subarea' is to be stored in a Payson City standard sump located in the street with gravel around the sump. The storage/infiltration area will consist of a 23.5'x23.5' area around the sump that shall have imported drainrock wrapped with mirafi fabric. This provides a storage volume of 2,315 c.f. which exceeds the required storage volume of 2,252 c.f. See the adjacent spreadsheet for calculations.

In the event of a sump overflow from the 350 North, a swale along the east property line has been proposed to convey flow out to 400 North Street. The peak flow of the 'South Subarea' during the 100-yr storm event with a 15-min. time of concentration was determined to be 1.58 cfs (1=1.6 in/hr, CA=0.99 acres). A 6" deep, 4' wide swale at S=2% has a capacity of 8.2 cfs.

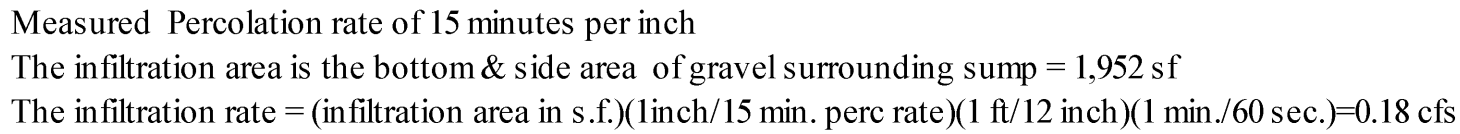


Measured Percolation rate of 15 minutes per inch
 The infiltration area is the bottom & side area of gravel surrounding sump = 1,492 sf
 The infiltration rate = (infiltration area in s.f.)(1inch/15 min. pere rate)(1 ft/12 inch)(1 min./60 sec.)=0.14 cfs

Retention calculations						
Lapsed Time (min.)	Rainfall intensity (in/hr)	Total Rainfall (in)	Rainfall Volume (cu.ft.)	Release Volume (cu.ft.)	Required Storage (cu.ft.)	
A	B	C	D	E	F	
5	2.40	0.20	524	41	482	
10	1.92	0.32	838	83	755	
15	1.60	0.40	1047	124	923	
30	1.10	0.55	1440	249	1191	
60	0.70	0.70	1833	497	1335	
120	0.50	1.00	2618	995	1624	
180	0.43	1.29	3378	1492	1886	
360	0.33	2.00	5237	2985	2252	
720	0.22	2.64	6913	5969	944	
1440	0.14	3.30	8641	11938	-3297	

A, B, & C are based upon Payson Precipitation Data
 $D = C / (12 \text{ inches/foot}) \times \text{total acreage of site } \times 43,560 \text{ sq/acre} \times \text{run-off coefficient}$, where $Q = CIA$ and $V = CIA \times A$
 $E = \text{Infiltration rate (cfs)} \times A \times 60 \text{ sec.}$
 $F = D - E$ to determine storage volume

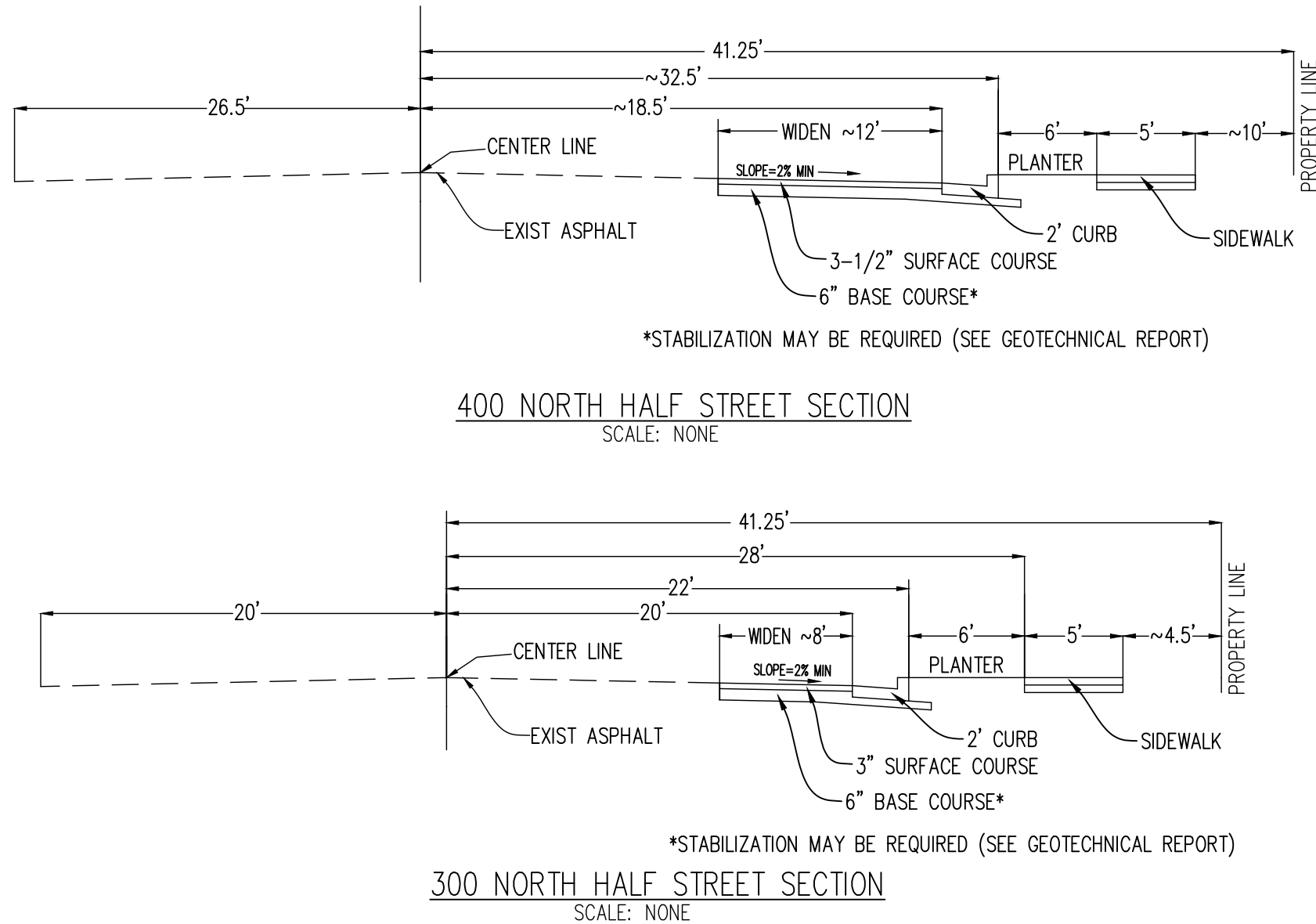
Assume a 5' diameter, 10' deep sump: Volume = $(3.14)(2.5')^2(12') = 196 \text{ cf}$
 Assume 23.5'x23.5' gravel area around sump with 40% voids = $(23.5'x23.5'-(3.14)(3''/2)) \cdot (8') \cdot (.40) = 1,677 \text{ cf}$
 2' Gravel under sump manhole w/ 40% voids = $(23.5'x23.5' \times 2 \times .4) = 442 \text{ c.f.}$
 Storage Volume of sump = 2,315 cf



Retention calculations						
Lapsed Time (min.)	Rainfall intensity (in/hr)	Total Rainfall (in)	Rainfall Volume (cu.ft.)	Release Volume (cu.ft.)	Required Storage (cu.ft.)	
A	B	C	D	E	F	
5	2.40	0.20	718	54	664	
10	1.92	0.32	1149	108	1040	
15	1.60	0.40	1436	163	1273	
30	1.10	0.55	1975	325	1649	
60	0.70	0.70	2513	651	1862	
120	0.50	1.00	3590	1302	2289	
180	0.43	1.29	4632	1952	2679	
360	0.33	2.00	7181	3905	3276	
720	0.22	2.64	9478	7809	1669	
1440	0.14	3.30	11848	15618	-3770	

A, B, & C are based upon Payson Precipitation Data
 $D = C / (12 \text{ inches/foot}) \times \text{total acreage of site } 43,560 \text{ sq/acre} \times \text{run-off coefficient, where } Q = CIA \text{ and } V = CiA$
 E = Infiltration rate (cfs) $\times A \times 60 \text{ sec.}$
 $F = D - E$ to determine storage volume

Assume a 5' diameter, 10' deep sump: Volume = $(3.14)(2.5')^2(12') = 196 \text{ cf}$
 Assume 28.5'x28.5' gravel area around sump with 40% voids = $(28.5'x28.5' - (3.14)(3')^2) \times (.60) = 2,509 \text{ cf}$
 2' Gravel under sump manhole w/ 40% voids = $(28.5'x28.5' \times 2 \times .60) = 650 \text{ c.f.}$
 Storage Volume of sump = 3,355 cf

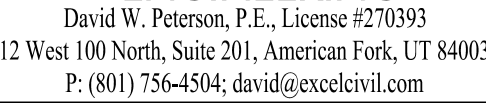


Percolation Test Results			
Percolation Test Location	Test Depth Interval (in.)	Percolation Rate (min/in)	Soil Type
Perc -1	48 to 60	15	GP-GM

The information presented in this letter applies only to the soils tested in the percolation test holes at the subject site. The observations and recommendations presented in this letter were conducted within the limits prescribed by our client, with the usual thoroughness and competence of the engineering profession in the area at this time. No warranty or representation is intended in our proposals, contracts, letters, or reports.

[illegible]

709 North 1890 West #39A
Provo, UT 84601
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