

CLIENT:  
 MODERN NW INC.  
 810 NE GLUSAN ST.  
 PORTLAND OR, 97213  
 PH: (971) 322-3318  
 FX:  
 CONTACT: SERGY MARANDYUK  
 EMAIL: sergey@modernnw.com

PRE-DEVELOPED CATCHMENT PLAN FOR:  
**18TH AVENUE SUBDIVISION**

**OLSON** LAND SURVEYORS  
 ENGINEERS  
 ENGINEERING INC. 222 E. EVERGREEN, VANCOUVER, WA 98660  
 360-695-1585  
 COPYRIGHT 2022, OLSON ENGINEERING, INC.

PRE-DEVELOPED CATCHMENT PLAN FOR:

Catchment	Storm Facility	Description	Area (acres)
Basin A	Tract 'B'	SG4, Forest, Steep	10.034

Table G1: Hydrologic parameters used in pre-developed catchment analysis



9/27/2022

CHANGES / REVISIONS

DESCRIPTION:	DATE:

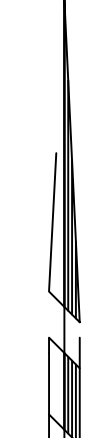
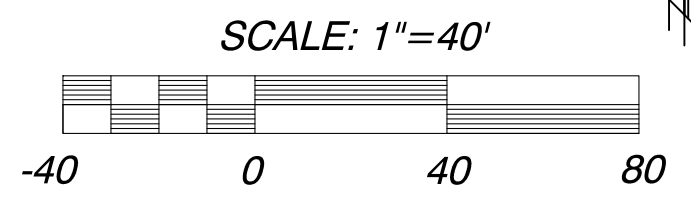
DESIGNED: AAK  
 DRAWN: AAK  
 CHECKED: PAT  
 DATE: SEPTEMBER 2022  
 SCALE: H: 1"= 40'  
 V: N/A

18TH AVENUE SUBDIVISION

JOB NO.: A10212.01.01

SHEET

1-2



J:\data\A10212\A1021201\A1021201\A1021201\Engineering\Prelim\4-SHEETS\Catchment Plans.dwg  
 PLOT\_STYLE





CLIENT:  
 MODERN NW INC.  
 810 NE GLUSAN ST.  
 PORTLAND OR, 97213  
 PH: (971) 322-3318  
 FX:  
 CONTACT: SERGY MARANDYUK  
 EMAIL: sergey@modernnw.com

DEVELOPED CATCHMENT PLAN FOR:  
**18TH AVENUE SUBDIVISION**

OLSON LAND SURVEYORS  
 ENGINEERS  
 ENGINEERING INC. 222 E. EVERGREEN, VANCOUVER, WA 98660  
 360-695-1385  
 COPYRIGHT 2022, OLSON ENGINEERING INC.



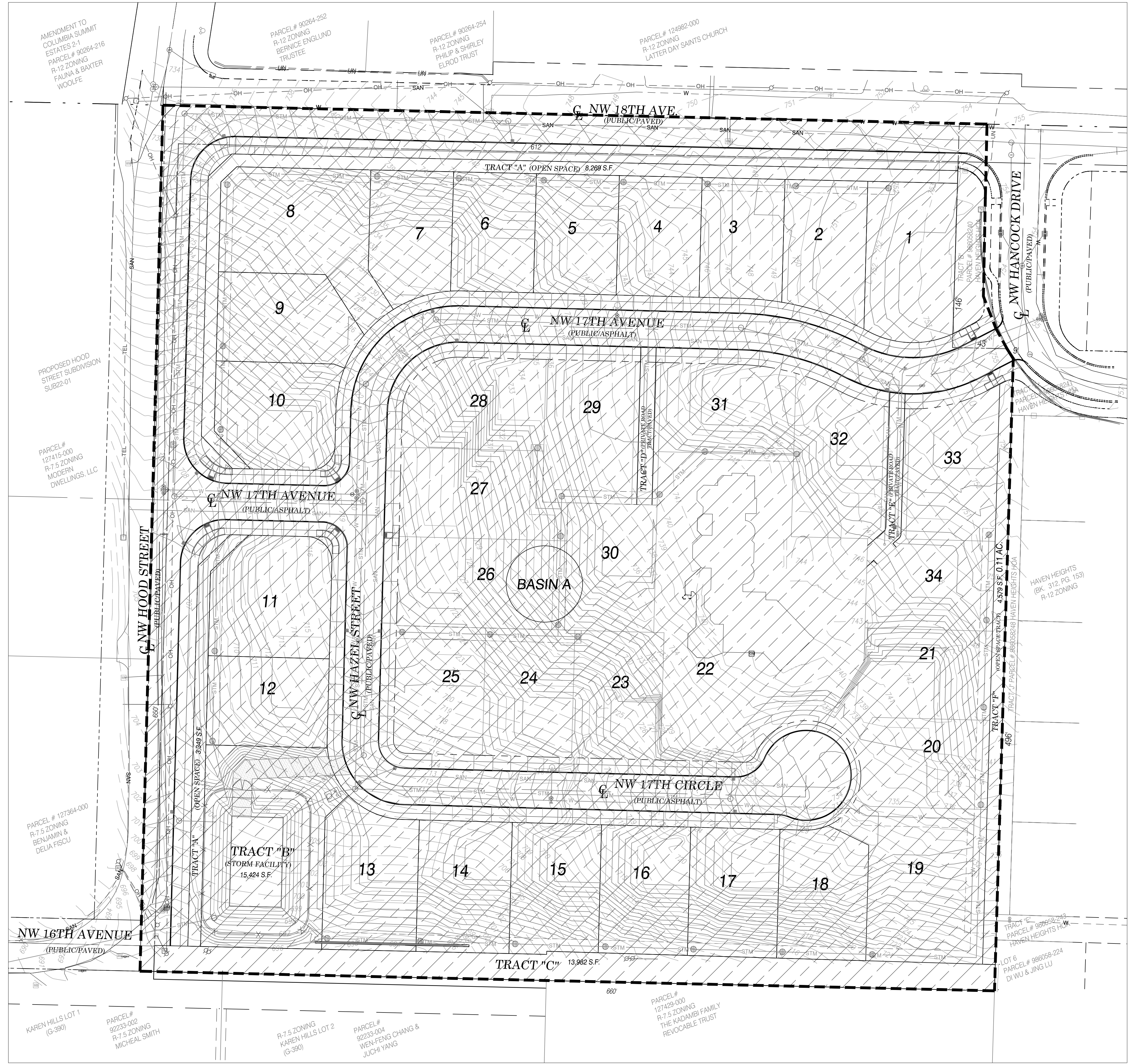
9/27/2022

CHANGES / REVISIONS  
 DESCRIPTION: DATE:

DESIGNED: AAK  
 DRAWN: AAK  
 CHECKED: PAT  
 DATE: SEPTEMBER 2022  
 SCALE: H: 1" = 40'  
 V: N/A

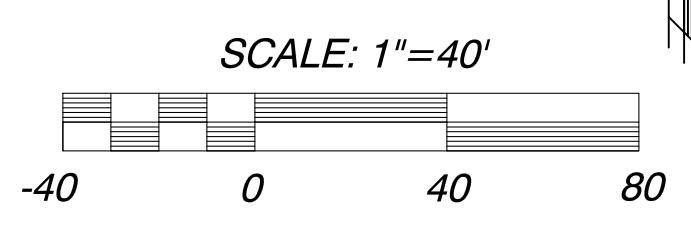
18TH AVENUE SUBDIVISION  
 JOB NO.: A10212.01.01

**SHEET**  
**2-2**



Catchment	Storm Facility	Description	Area (acres)
Basin A	Tract 'B'	Roads Steep	1.67
		Roof Tops Flat	2.27
		Driveways Steep	0.45
		Sidewalks Steep	0.46
		SG4, Lawn, Steep	5.17

Table G2: Hydrologic parameters used in developed catchment analysis



J:\cadd\A100000\A10200\A10212\Engineering\Prelim\4-SHEETS\Catchment Plans.dwg  
 PLOT\_STYLE

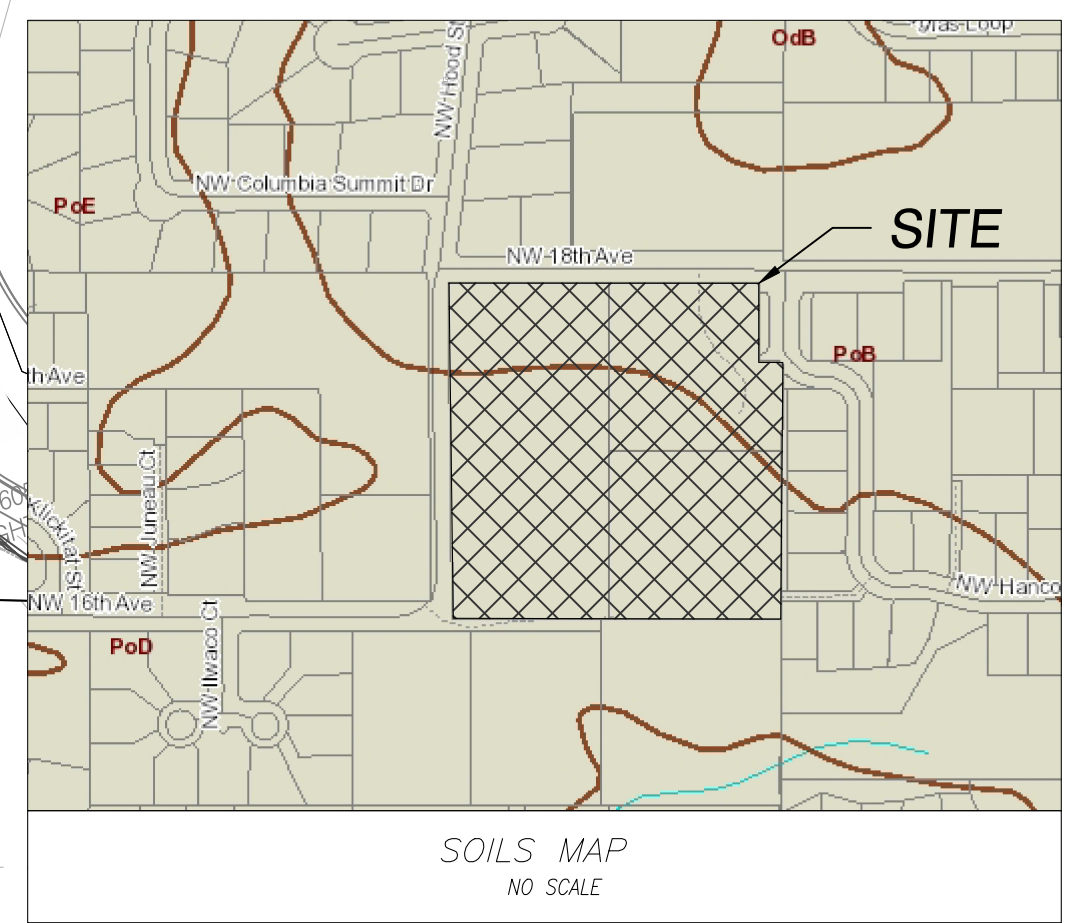
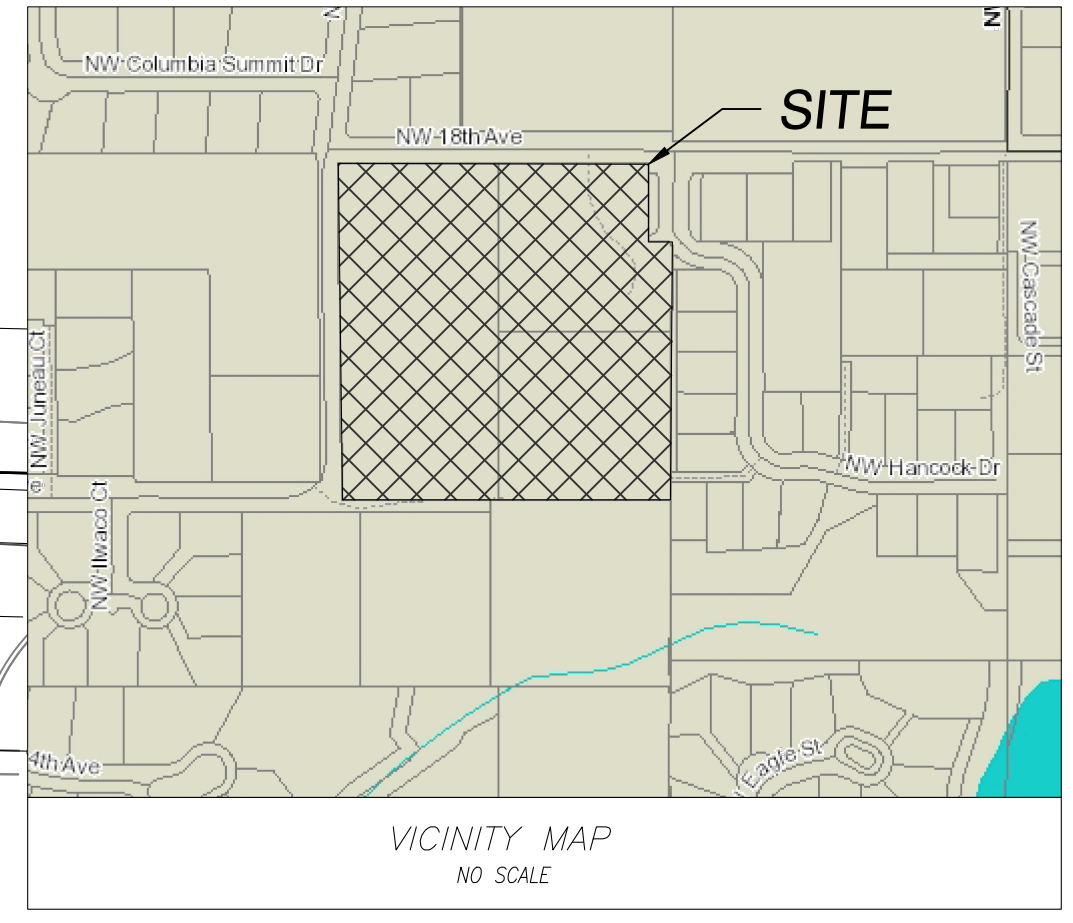
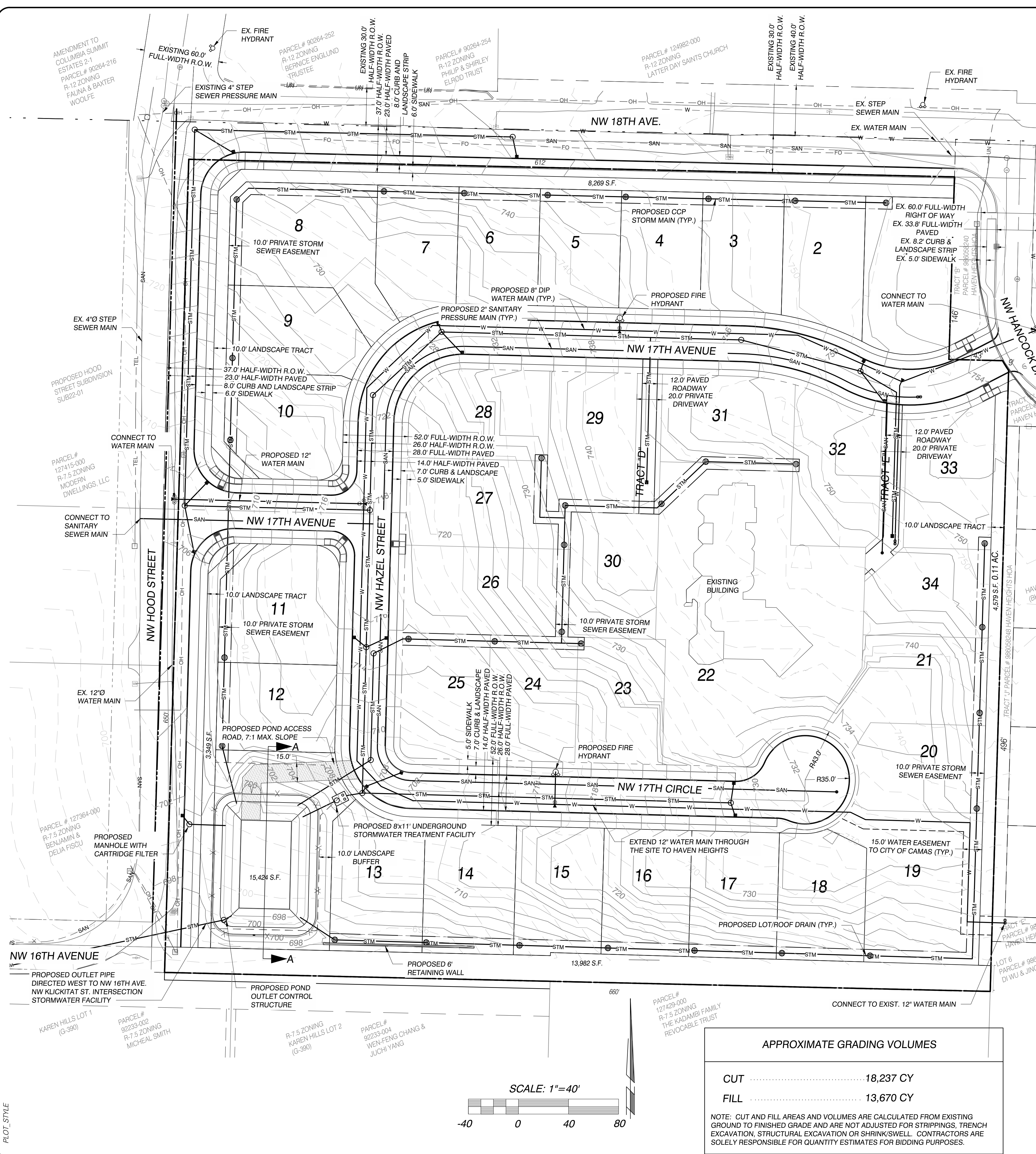


CLIENT:  
 MODERN NW INC.  
 6101 NE GLISAN ST.  
 PORTLAND OR. 97213  
 PH: (971) 322-3318  
 FX:  
 CONTACT: SERGY MARANDYUK  
 EMAIL: sergey@modernnw.com

PRELIMINARY DEVELOPMENT PLAN FOR:

# 18TH AVENUE SUBDIVISION

LAND SURVEYORS  
**OLSON** ENGINEERS  
 ENGINEERING INC. 222 E. EVERGREEN, VANCOUVER, WA 98660  
 360-695-1865  
 503-289-9936  
 COPYRIGHT 2022 OLSON ENGINEERING INC.



### LEGEND

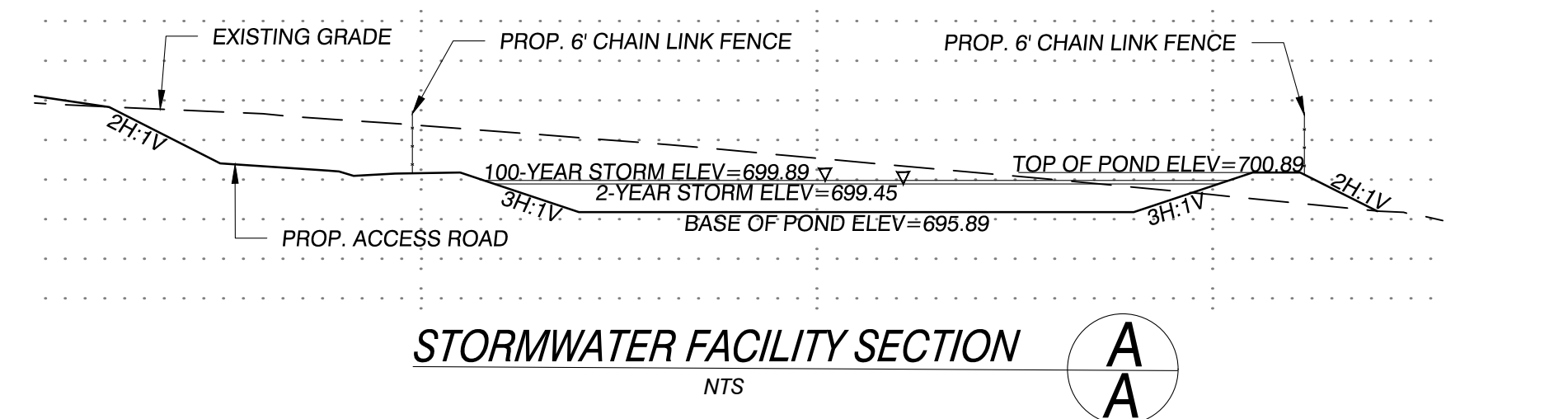
---	PERIMETER OF SITE	---	EXIST WATER LINE
---	RIGHT-OF-WAY LINE	---	EXIST WATER METER
---	CENTERLINE OF ROAD	---	TELEPHONE RISER
---	FACE OF CURB	---	GAS RISER
---	LOT LINE	---	ELECTRIC RISER
---	EASEMENT LINE	---	UTILITY POLE
STM	STORM SEWER LINE	---	UTILITY POLE W/ LIGHT
STM	EXIST STORM SEWER	---	SIGN POST
SAN	SANITARY SEWER LINE		
SAN	EXIST SANITARY SEWER		
W	WATER SERVICE LINE		
W	EXIST WATER LINE		
123	GRADED CONTOUR LINE		
123	EXIST CONTOUR LINE		

- ### GENERAL NOTES
- WATER**
- THERE IS AN EXISTING 12" WATER MAIN IN NW 16TH AVE AND NW HOOD ST.
  - A NEW 8" WATER MAIN WILL BE CONSTRUCTED THAT WILL LOOP THROUGH THE SUBDIVISION TO THE EXISTING MAIN FROM NW 18TH AVE. TO NW HOOD STREET. A 12" WATER MAIN IS TO BE EXTENDED THROUGH THE SITE FROM THE NW HOOD STREET TO THE EXISTING STUB LOCATED IN TRACT "E" OF HAVEN HEIGHTS.
  - ALL PROPOSED LOTS WILL INCLUDE AN INDIVIDUAL WATER METER.
  - PROPOSED FIRE HYDRANTS WILL BE ADDED THROUGH THE SITE TO MEET FIRE CONTROL REQUIREMENTS AND WILL BE LOCATED AS REQUIRED BY THE FIRE MARSHALL.
  - WATER EASEMENTS WILL BE DEDICATED TO CITY OF CAMAS AS REQUIRED.
- SANITARY**
- THERE IS AN EXISTING 4" SANITARY PRESSURE (STEP) MAIN IN NW 18TH AVE.
  - A NEW PRESSURE MAIN WILL BE EXTENDED INTO THE DEVELOPMENT TO SERVE ALL PROPOSED LOTS AND WILL RECONNECT WITH NW HOOD STREET.
  - 4" SANITARY SEWER LATERALS WILL BE INSTALLED TO SERVE EACH LOT PER CITY OF CAMAS REQUIREMENTS.
- SANITARY SEWER EASEMENTS WILL BE DEDICATED TO CITY OF CAMAS AS REQUIRED.
- STORMWATER**
- ALL STORMWATER TREATMENT AND DETENTION WAS DESIGNED TO BE IN ACCORDANCE WITH THE CITY OF CAMAS STANDARDS AND THE STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON.
  - ALL STORMWATER FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED BY THE HOA WITH RIGHT-OF-ENTRY TO THE CITY OF CAMAS FOR INSPECTION PROPOSES.
  - NATIVE SOILS ON THE SITE ARE CONSIDERED POWELL SILT LOAM AND ARE TO BE CLASSIFIED IN WWHM AS GROUP 4 (USDA GROUP C).
  - STORMWATER RUNOFF FROM THE ON SITE PAVEMENT, SIDEWALKS, DRIVEWAYS AND LANDSCAPE AREAS WILL BE COLLECTED IN CATCH BASINS AND ROUTED TO A FILTER CARTRIDGES (CONTECH STORMFILTER OR SIMILAR) FOR TREATMENT. STORMWATER WILL BE DETAINED IN A DETENTION POND AND THEN RELEASED AT RATES BELOW PREDEVELOPED CONDITIONS.
  - STORM SEWER ACCESS AND INSPECTION EASEMENTS WILL BE DEDICATED TO CITY OF CAMAS AS REQUIRED.
- EROSION CONTROL**
- EROSION CONTROL MEASURES WILL BE DESIGNED IN CONFORMANCE WITH THE CITY OF CAMAS EROSION CONTROL ORDINANCE DURING FINAL DESIGN.
- TRANSPORTATION**
- NW 18TH AVE AND NW HOOD ST. ARE CLASSIFIED AS 2 OR 3 LANE ARTERIAL ROADS BY THE CITY OF CAMAS. HALF-WIDTH FRONTAGE IMPROVEMENTS WILL BE COMPLETE ADJACENT TO THE SITE ALONG NW 18TH AVE, NW HOOD ST. AND NW 16TH AVE.
  - NW HAZEL STREET, NW 17TH AVENUE AND NW 17TH CIRCLE ARE CLASSIFIED AS A 2 LANE LOCAL ROADWAYS BY THE CITY OF CAMAS.

### APPROXIMATE GRADING VOLUMES

CUT .....	18,237 CY
FILL .....	13,670 CY

NOTE: CUT AND FILL AREAS AND VOLUMES ARE CALCULATED FROM EXISTING GROUND TO FINISHED GRADE AND ARE NOT ADJUSTED FOR STRIPPINGS, TRENCH EXCAVATION, STRUCTURAL EXCAVATION OR SHRINK/WELL. CONTRACTORS ARE SOLELY RESPONSIBLE FOR QUANTITY ESTIMATES FOR BIDDING PURPOSES.



FILE PATH: J:\cambria\1000001\1021011\102112\Engineering\prelim\4-SHEETS\C1.dwg  
 SHEET: C1 OF 4

9/27/2022

CHANGES / REVISIONS	
DESCRIPTION:	DATE:

DESIGNED: AAK  
 DRAWN: AAK  
 CHECKED: RWP  
 DATE: SEPTEMBER 2022  
 SCALE: H: 1" = 40'  
 V: N/A

18TH AVENUE SUBDIVISION

JOB NO.: A10212.01.01

## SHEET

1 OF 1