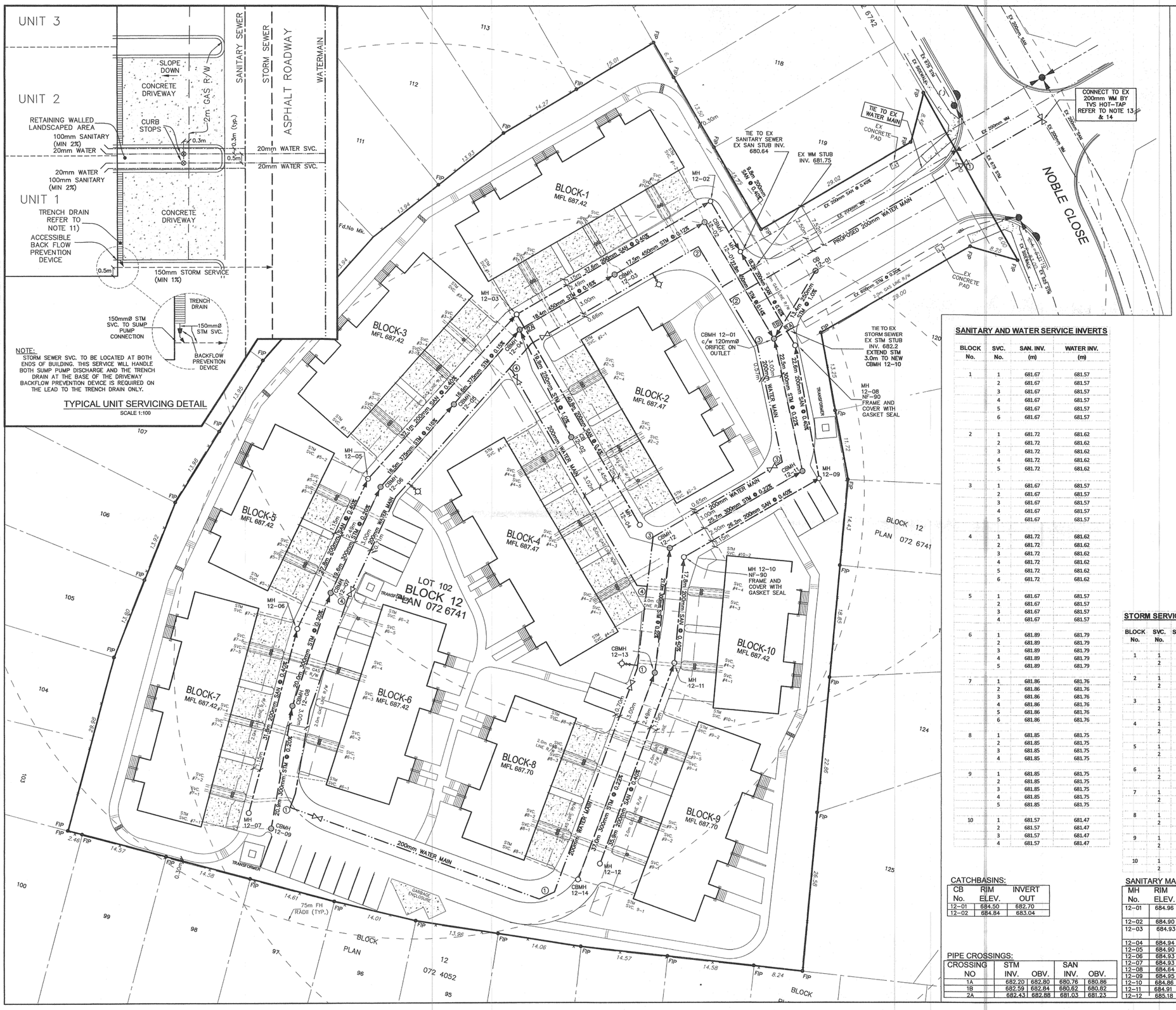



## LEGEND:

EX STORM SEWER
PROPOSED STORM SEWER
EX SANITARY SEWER
PROPOSED SANITARY SEWER
EX WATER LINE
PROPOSED WATER LINE
EX. CATCH BASIN
PROPOSED CATCH BASIN
EX WATER VALVE
PROPOSED WATER VALVE
EX FIRE HYDRANT
PROPOSED FIRE HYDRANT
EX MANHOLE
PROPOSED MANHOLE
SMH = STORM MANHOLE CBMH = CATCHBASIN MANHOLE MH = SANITARY MANHOLE
PIPE CROSSING LOCATION REFERENCE No. (1A)
WATER MAIN INVERT ELEVATION REFERENCE No. (1)

## NOTES:

1. DIMENSIONS ARE IN METRES AND DECIMALS THEREOF.
2. CONTOUR INTERVAL = 0.20m
3. SURVEY PERFORMED BETWEEN JULY 14 AND AUGUST 12, 2011 BY PALS GEOMATIC CORP.
4. ELEVATIONS ARE GEODETIC AND ARE REFERRED TO ASCM 467704 . ELEV. = 686.014m
5. REFER TO ARCHITECTURAL SITE PLAN FOR SITE LAYOUT DETAILS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION & PROTECTION OF EXISTING UTILITIES
7. REFER TO GEO-TECHNICAL REPORT FOR GRADING & PAVEMENT REQUIREMENTS.
8. SANITARY AND STORM SERVICES TO BUILDINGS TO HAVE MINIMUM SLOPE OF 2%.
9. ACCESSIBLE BACK FLOW PREVENTION DEVICES SHALL BE INSTALLED IN ALL STORM SERVICES TO THE BUILDINGS.
10. ALL CONSTRUCTION TO BE COMPLETED TO CURRENT CITY OF ST. ALBERT DESIGN AND CONSTRUCTION STANDARDS
11. TRENCH DRAINS AT BASE OF DRIVEWAYS TO BE TIED TO STORM SERVICES c/w A BACK FLOW PREVENTION DEVICE AT BOTH ENDS. BACK FLOW PREVENTION DEVICE TO BE INSTALLED ON THE STORM SERVICE LEAD TO THE TRENCH DRAIN ONLY AND IS TO BE ACCESSIBLE TO ALLOW FOR EASE OF MAINTENANCE.
12. WATER MAIN TO BE INSTALLED WITH MINIMUM OF 2.7m COVER.
13. VALVE TO BE DENSO WRAPPED AND CATHODICALLY PROTECTED PRIOR TO BEING BURIED. VALVE TO BE LEFT IN THE OPEN POSITION. A ROD AND BOX DOES NOT NEED TO BE PROVIDED. ON THE AS-BUILT RECORD DRAWING PROVIDE TIE-IN LOCATION TO TWO FIXED POINTS WITH DIMENSIONS.
14. NOBLE CLOSE ROAD CUT AFTER INSTALLATION OF SECOND WATER SERVICE SHALL RESTORED TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE CITY OF ST. ALBERT ENGINEER.
15. ALL BOUNDARY VALVES ARE TO BE OPERATED BY CITY OF ST. ALBERT PUBLIC WORKS STAFF. CALL 780-459-1577 A MINIMUM OF 72 HOURS IN ADVANCE

**SERVICING MATERIAL:**
STORM SEWER - PVC DR 35
SANITARY SEWER - PVC DR 35
WATERMAINS - PVC C900

## SANITARY AND WATER SERVICE INVERTS

| BLOCK No. | SVC. No. | SAN. INV. (m) | WATER INV. (m) |
|---|---|---|---|
| 1 | 1 | 681.67 | 681.57 |
| | 2 | 681.67 | 681.57 |
| | 3 | 681.67 | 681.57 |
| | 4 | 681.67 | 681.57 |
| | 5 | 681.67 | 681.57 |
| | 6 | 681.67 | 681.57 |
| 2 | 1 | 681.72 | 681.62 |
| | 2 | 681.72 | 681.62 |
| | 3 | 681.72 | 681.62 |
| | 4 | 681.72 | 681.62 |
| | 5 | 681.72 | 681.62 |
| 3 | 1 | 681.67 | 681.57 |
| | 2 | 681.67 | 681.57 |
| | 3 | 681.67 | 681.57 |
| | 4 | 681.67 | 681.57 |
| | 5 | 681.67 | 681.57 |
| 4 | 1 | 681.72 | 681.62 |
| | 2 | 681.72 | 681.62 |
| | 3 | 681.72 | 681.62 |
| | 4 | 681.72 | 681.62 |
| | 5 | 681.72 | 681.62 |
| | 6 | 681.72 | 681.62 |
| 5 | 1 | 681.67 | 681.57 |
| | 2 | 681.67 | 681.57 |
| | 3 | 681.67 | 681.57 |
| | 4 | 681.67 | 681.57 |
| 6 | 1 | 681.89 | 681.79 |
| | 2 | 681.89 | 681.79 |
| | 3 | 681.89 | 681.79 |
| | 4 | 681.89 | 681.79 |
| | 5 | 681.89 | 681.79 |
| 7 | 1 | 681.86 | 681.76 |
| | 2 | 681.86 | 681.76 |
| | 3 | 681.86 | 681.76 |
| | 4 | 681.86 | 681.76 |
| | 5 | 681.86 | 681.76 |
| | 6 | 681.86 | 681.76 |
| 8 | 1 | 681.85 | 681.75 |
| | 2 | 681.85 | 681.75 |
| | 3 | 681.85 | 681.75 |
| | 4 | 681.85 | 681.75 |
| 9 | 1 | 681.85 | 681.75 |
| | 2 | 681.85 | 681.75 |
| | 3 | 681.85 | 681.75 |
| | 4 | 681.85 | 681.75 |
| | 5 | 681.85 | 681.75 |
| 10 | 1 | 681.57 | 681.47 |
| | 2 | 681.57 | 681.47 |
| | 3 | 681.57 | 681.47 |
| | 4 | 681.57 | 681.47 |

## STORM SERVICE INVERTS

| BLOCK No. | SVC. No. | STM. INV. (m) |
|---|---|---|
| 1 | 1 | 682.85 |
| | 2 | 682.92 |
| 2 | 1 | 682.67 |
| | 2 | 682.76 |
| 3 | 1 | 682.99 |
| | 2 | 682.91 |
| 4 | 1 | 683.03 |
| | 2 | 682.88 |
| 5 | 1 | 683.03 |
| | 2 | 682.91 |
| 6 | 1 | 683.03 |
| | 2 | 683.06 |
| 7 | 1 | 683.10 |
| | 2 | 683.10 |
| 8 | 1 | 683.07 |
| | 2 | 683.02 |
| 9 | 1 | 683.07 |
| | 2 | 683.00 |
| 10 | 1 | 683.02 |
| | 2 | 682.75 |

## STORM MANHOLES:

| SMH No. | RIM ELEV. | INVERT IN | INVERT OUT |
|---|---|---|---|
| CBMH 12-01 | 684.54 | 682.27(NW) 682.27(SE) 682.56 (CB LEAD) | 682.21(E) |
| CBMH 12-02 | 684.81 | 682.36 | 682.30 |
| CBMH 12-03 | 684.79 | 682.41 | 682.38 |
| CBMH 12-04 | 684.79 | 682.49(S) 682.66(SE) (CB LEAD) | 682.44 |
| CBMH 12-05 | 684.79 | 682.55 | 682.52 |
| CBMH 12-06 | 684.79 | 682.64 | 682.58 |
| CBMH 12-07 | 684.79 | 682.74 | 682.68 |
| CBMH 12-08 | 684.79 | 682.84 | 682.78 |
| CBMH 12-09 | 684.78 | | 682.88 |
| CBMH 12-11 | 684.54 | 682.38 | 682.32 |
| CBMH 12-12 | 684.75 | 682.50 | 682.44 |
| CBMH 12-13 | 684.79 | 682.61 | 682.55 |
| CBMH 12-14 | 685.16 | | 682.69 |

## CATCHBASINS:

| CB No. | RIM ELEV. | INVERT OUT |
|---|---|---|
| 12-01 | 684.50 | 682.70 |
| 12-02 | 684.84 | 683.04 |

## SANITARY MANHOLES:

| MH No. | RIM ELEV. | INVERT IN | INVERT OUT |
|---|---|---|---|
| 12-01 | 684.96 | 680.71(NW) 680.71(SE) | 680.65(NE) |
| 12-02 | 684.90 | 680.81 | 680.75 |
| 12-03 | 684.93 | 681.02(S) 681.02(SE) | 680.96(NE) |
| 12-04 | 684.94 | | 681.18 |
| 12-05 | 684.90 | 681.22 | 681.16 |
| 12-06 | 684.93 | 681.39 | 681.33 |
| 12-07 | 684.93 | | 681.52 |
| 12-08 | 684.64 | 680.84 | 680.78 |
| 12-09 | 684.95 | 680.99 | 680.93 |
| 12-10 | 684.86 | 681.15 | 681.09 |
| 12-11 | 684.91 | 681.28 | 681.22 |
| 12-12 | 685.18 | | 681.42 |

## WATERMAIN INVERT ELEV:

| LOCATION | INVERT ELEV. |
|---|---|
| (1) | 681.40 |
| (2) | 681.80 |
| (3) | 681.60 |
| (4) | 681.10 |

## PIPE CROSSINGS:

| CROSSING NO | STM INV. | STM OBV. | SAN INV. | SAN OBV. |
|---|---|---|---|---|
| 1A | 682.20 | 682.80 | 680.76 | 680.86 |
| 1B | 682.59 | 682.84 | 680.62 | 680.82 |
| 2A | 682.43 | 682.88 | 681.03 | 681.23 |


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| Rev. | yy-mm-dd | Revision /Drawing Issue | Drawn by |
|---|---|---|---|
| 3 | 13-02-08 | RE-ISSUED FOR APPROVAL | AHB |
| 2 | 12-12-20 | RE-ISSUED FOR APPROVAL | AHB |
| 1 | 12-09-28 | ISSUED FOR APPROVAL | AHB |


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CITY OF ST. ALBERT
ENGINEERING SERVICES
EXAMINED
Per Greg Persson
Date Feb 19, 2013
Signature

PROJECT
NOBLE GREENS TOWNHOUSES
LOT 102, BLOCK 12, PLAN 072 6741
ST. ALBERT, ALBERTA

DRAWING TITLE
SERVICING PLAN

| Project number | Date |
|---|---|
| C11-028 | 15 DEC 2011 |
| Drawn by: AHB | Scale: 1:300 |
| Checked by: MVM | |

C-101 | REVISION 3

DRAWING NAME: C11-028 GRADING AND SERVICING 15.dwg
LAYOUT: SERVICING

DATE PLOTTED: Feb 08, 2013 - 9:34 am